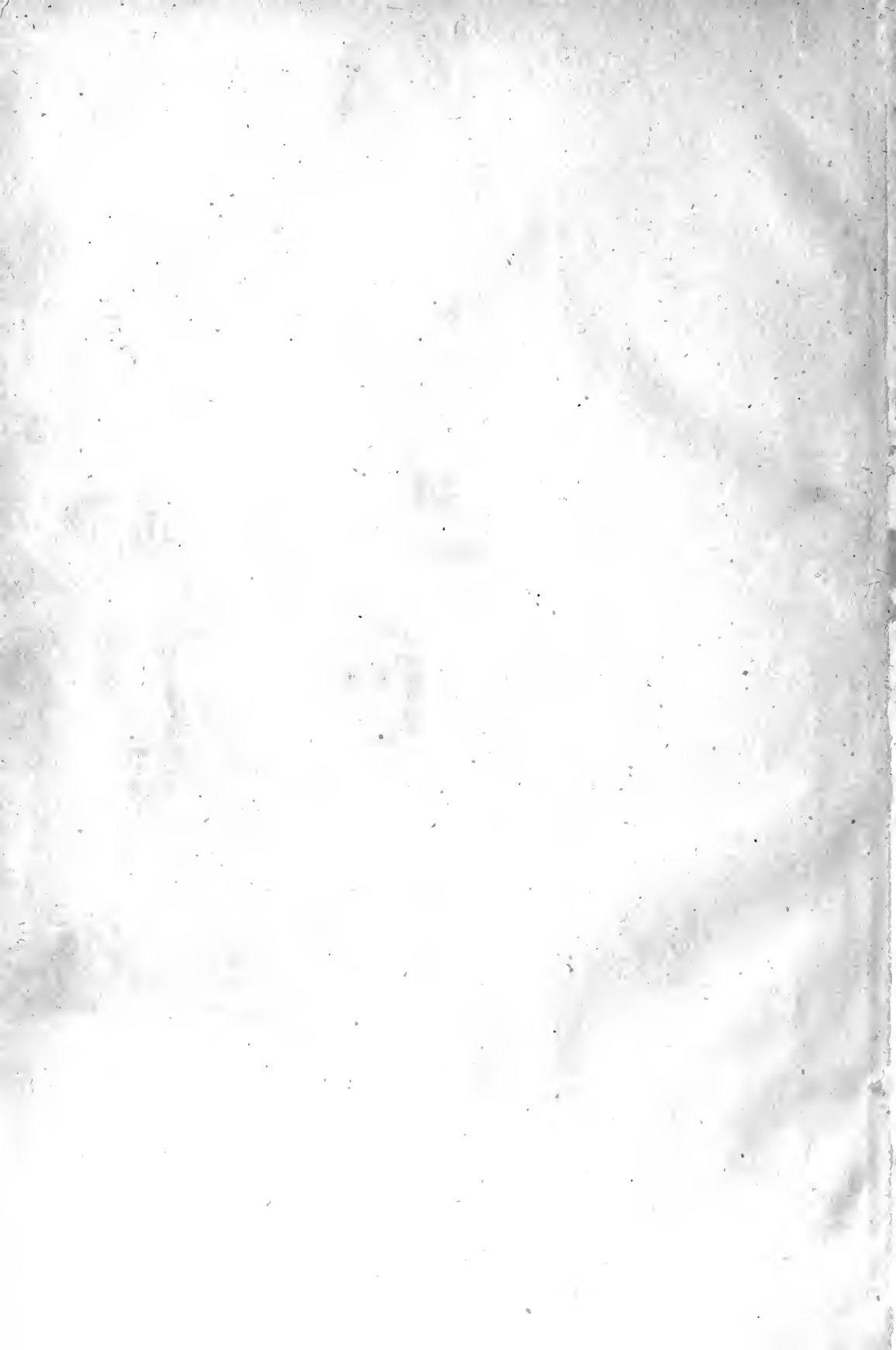


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THE ARCHITECTURAL RECORD

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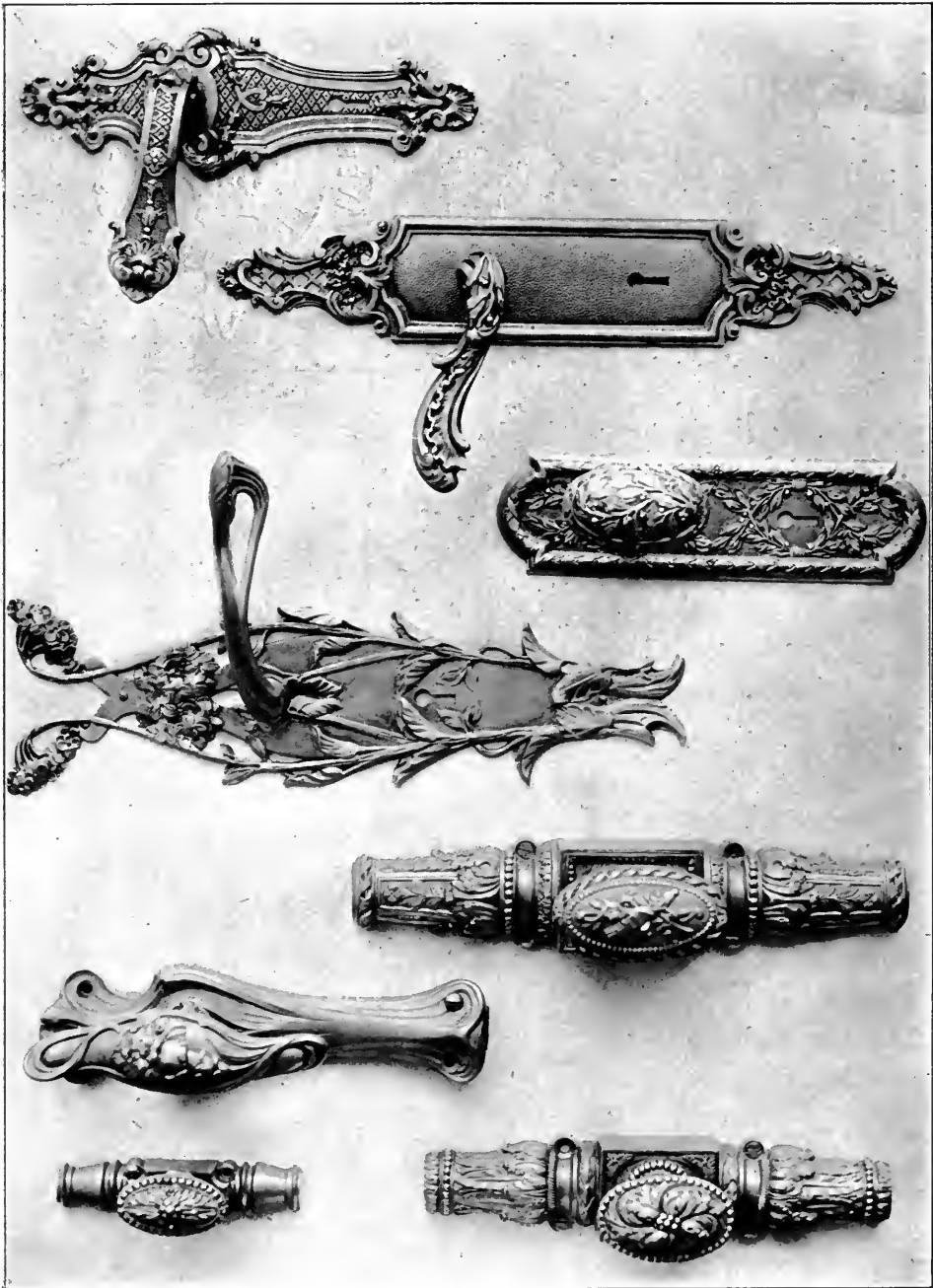
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EXAMPLES OF MODERN FRENCH HARDWARE.

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No. 1.

ARCHITECTURE IN SOUTHERN CALIFORNIA.



It has been said that to obtain thoroughly characteristic pictures of a new place, one should use one's first impressions, should select those conditions which first strike one as distinctive, because when one lives long in a place, its distinguishing features fade. It is this idea which furnishes the writer—a comparative newcomer to Southern California—with an excuse for this article.

When one comes to the Far West for the first time, he is impressed with the newness of the country by the number of tents and tent-houses everywhere seen, not only in the outskirts of cities, but often in their very midst; the canvas home of the pioneer settler is still much in evidence. Next come the simple wooden dwellings of the poorer classes, square little cottages most of them, with awkwardly hipped roofs, but many displaying a degree of taste that might mystify one not familiar with a certain phase of California social life; for here, of all places in the world, a man's financial condition, or the kind of work he does, is not to be taken as an index of his real worth.

Politics makes strange bedfellows, but no more so than does health-seeking in California. An able young clergyman, for instance, thrown out of a pastorate by untoward circumstances, is found applying for work at the packing house of a lemon exchange. A young architect who once had an enviable practice builds up his health as a hired hand on a ranch, with wages of twenty-five dollars a month and board; one of his table companions at the cheapest of cheap boarding-houses being the stable-man of the lady with whom he rides horseback in the evening! A woman who drives a coach and four when at home, hobnobs at Catalina Island with the captain of a pleasure launch, every inch a gentleman, but without a penny in his pocket. Cases of the kind are numberless among the occupants of California houses, almost too simple to be classified as



THE SANTA BARBARA MISSION.

Santa Barbara, Cal.

Architecture, but which fill a very necessary need, and serve a very useful purpose in the present transient state of development of the Far West.

The buildings of more pretension, that constitute the real architecture of the country, might be styled, for convenience, as those which have and those which have not been affected by the influence of the missions, for the California missions are a factor that must be reckoned with in any complete discussion of Californian architecture. The original missions are most of them monuments of rare beauty that have a quality peculiarly in harmony with the Western landscape—a quality made up of broad, simple masses, plain wall surfaces and of low-pitched roofs that do not compete with Nature's own mountain Architecture. "What do you think of the Mission Style?" is a question repeatedly asked, and the answer is, that the original mission buildings bear about the same relation to the architecture of California as do the first Colonial buildings to that of New England. In both cases the original models are good, but their influence has been good, bad, and indifferent. The spirit of the style is made up of the low-pitched roofs and broad masses before mentioned, of courts and cloisters designed for out-of-door living, of thick masonry walls and consequent deep window and door recesses, of sturdy doors and window-

sash, of open-roof construction, and, in most cases, of well-studied proportion of parts. The flowing lines of some of the gables are a very incidental feature. Adaptation of the style to a modern house plan almost presupposes a patio where a family may live out of doors, the out-of-door aspect of California planning being one, it may be said in passing, that has not yet been sufficiently recognized. Almost every inn in France or Germany, for instance, has its delightful little courtyard, often with tables set out under arbors or loggias, where some of the meals are served. California has a climate infinitely better adapted to the purpose, and yet either the architects or the projectors of hotels have not often taken advantage of it.

The ornamental forms of the mission style may be and are applied to plans of almost any kind, but that does not make mission buildings. Ornament is not style, a fact that can scarcely be too often brought to our minds. Style is made up of the inherent quality in a building occasioned by its plan, by its site, by local building materials, by the life that goes on within its walls, and only partially by the ornament afterward tacked upon it. California is rampant with buildings that have borrowed the mission ornament but not its spirit, and, roughly speaking, they constitute the deadly uninteresting class of buildings that are without personality, and are even of questionable harmlessness.



THE BURRAGE RESIDENCE.

Redlands, Cal.

Mission Style aside, the greatest fault that can be found with the architecture of Southern California is that which may be found with all American architecture to a greater or less extent, namely, a lack of simplicity. There is too much airing of architectural knowledge, and too much application of architectural features to places where they do not belong. Wm. M. Hunt once advised his pupils to learn thoroughly the technique of their art, and then to forget it, that they might not be hampered by the application of its rules. It would be better if more of our architectural problems were worked out with less attention to architectural formulæ and architectural theory, and with greater attempt to solve practical needs in the simplest and most appropriate way. The public is not interested in the clockwork of architecture, but wishes to read its correct time; and the buildings are legion in America that have architectural wheels and cogs scattered over their exteriors with entire disregard for their fitness in the place.

Simplicity alone, however, will not make good architecture. If not produced by the hand of the artist, it is apt to be mere baldness. The practical requirements of a plan having been developed, it requires the artist's imagination, his deft touch and sensitive hand to make the final turn which differentiates the work of art



RESIDENCE AT LOS ANGELES, CAL.

Chas. F. Whittlesey, Architect.



RESIDENCE AT LOS ANGELES, CAL.

Chas. F. Whittlesey, Architect.

from the production of the artisan. The artisan architect, confronted with new building conditions, will solve them with old formulæ, not seeing their significance as opportunities for novel results. The artist will study like conditions until they become a part of him, and until the forms most appropriate to their expression take shape in what is at once seen to be a natural and effective solution of the problem. McKim, Mead & White and Wilson Eyre, for example, instil into their buildings a certain indefinable quality which nothing but long training and sensitive imaginations combined can produce. And a strange, intangible quality the art element always is; a certain unobtrusiveness, and yet withal a charm, that holds the attention, captivates and inspires. Unobtrusiveness comes with fitness to location, and with just proportioning of part with part, no one portion claiming undue attention over the rest. The charm is due to unique form arrangements that have been brought into consonance with novel requirements of plan. The mind is always pleased to discover new needs met by new ends.

It is the inappropriate use of new forms, their adoption without fit occasion that causes jar, and it is this that may be made the chief criticism against the "architecture of ideas." Fortunately this mis-

guided movement (the main asylum of which in this country is to be found in Chicago among the idolatrous followers of the really capable Louis Sullivan and Frank L. Wright) has not yet reached Southern California. The makers of poor architecture in the Far West are sometimes poorly trained, but they are seldom demented. Some of them realize that they have come to a new country full of wonderful possibilities. Few imagine themselves the wonderful discoverers of a new architecture, not needing the experience of



THE CLOISTER OF HARVARD SCHOOL.

Los Angeles, Cal.

A. B. Benton, Architect.

the able men of former ages. Their abilities are limited, but (unlike the Chicago coterie in question) so is their conceit. This "architecture of ideas" is merely a new outbreak of the kind of men who would be original if they could, but who, failing to distinguish what true originality is, have made themselves instead simply ridiculous.

What the future architecture of Southern California will be like it is difficult to say. The country is still in a very much undeveloped state, and the present character of its architecture is, on the whole, exceedingly ephemeral. Equivalents of the marble palaces of Fifth Avenue, and the brick rows of Philadelphia, are not to be seen, and nothing as yet points with distinctness to any particular character. The architecture of any country will, in the

end, however, be an accurate reflection of its commercial, social and climatic conditions and of its natural resources; and a rough inventory of such conditions and resources, as they exist at present in Southern California, ought to be suggestive of the character of its future architecture.

Los Angeles is the gateway to Southern California, the port of land entry, and also its most important commercial city, and what is likely to happen there in architectural character will, generally



A GARDEN IN SOUTHERN CALIFORNIA.

speaking, be a fair index of what is apt to happen over the entire southern part of the state. The population of Los Angeles has been increasing during the last five years at an astonishing rate, and continues to do so. In 1900 it was one hundred and two thousand, and at the last census one hundred and fifty thousand. The people who stream in come largely on account of its health-giving quality—as a health resort Southern California bids fair to rival the Riviera. The health-seeker is, therefore, an important element of the population. Another conspicuous factor of the same kind to be reckoned with, is the sight-seeing tourist, and largely on his account the architecture of the country has, so far, been an architecture of homes and hotels. To be sure, Los Angeles has lately acquired a few sky-scrapers, but it has been aptly said that many cities in the East have scraped higher and

harder. Southern California has nothing new to say in the line of tall office buildings.

Beginning thirty miles east of the city and continuing twenty miles west to the sea; along the foot-hills of the Sierra Madres, are countless residential and hotel sites unsurpassed anywhere in the world for beauty of location and climatic desirability. To the north rise the mountains, five to six thousand feet high; the everlasting hills of sage-brush, cactus and Spanish dagger, of pine on lofty summit and fern in shaded canyon; while to the south one looks down over orange, lemon and olive groves, across miles of rarely



beautiful valley, and on beyond to another range of mountains stretching away in the blue distance as far as the eye can see.

All this district is already accessible from Los Angeles by an inter-urban electric service, which for perfection of roadbed, car equipment, and speed of travel, is nowhere excelled. These electric lines radiate from the city in a dozen different directions, some toward the sea, others skirting the foot-hills eastward, altogether comprising over four hundred miles of track, and all along their routes the land is being taken up to house people whose headquarters are in Los Angeles. A goodly share of the city's business population already live in the foot-hill towns or at the sea-shore, and their number constantly increases.

At Santa Monica, where one of these lines terminates, the Sierra Madre range finds a culmination of fitting dignity. It there projects itself into the sea, forming a bay, which in point of beauty has been likened to the Bay of Naples. There extends along the top of the bluff at this point a beautiful avenue of cypress and eucalyptus, forming a sort of seaside Thames embankment (only higher and with more of an Italian character), and when the bay is



THE EAST PERGOLA, HOTEL GLENWOOD.

Riverside, Cal.

Arthur B. Benton, Architect.

seen from beneath their dark-hued branches toward the close of day, when its waters take on the soft shades of twilight, luminous grays intermingling with the deepest of indigos in a bewitching dance of color, when its shipping becomes imbued with the same evening hour's enchantment, and its mountains appear as great masses of purple silhouetted against a red and golden sky as wonderful as any ever produced in Italy, it is not difficult to believe in the fairness of the comparison.

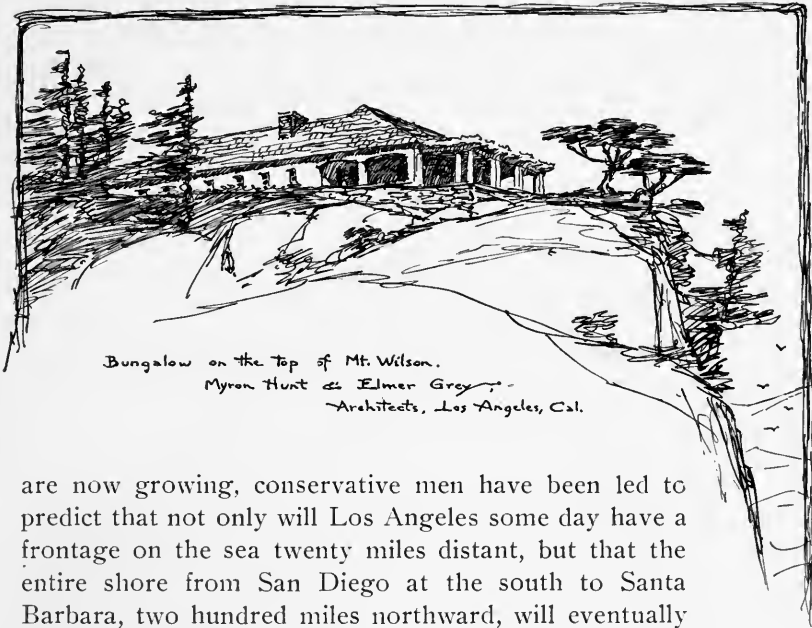
From Santa Monica another electric line runs southward along the seashore to Redondo, a distance of about fifteen miles; and as one speeds over it—the ocean breakers almost at one's feet, the wet sand dotted with water-fowl, the salt sea air buffeting one in the face, the waters of the bay sparkling with sunlight, and Catalina, "the Magic Isle of the Pacific," blue in the distance—the beauty of the scene and the exhilaration of the ride rouse all one's enthusiasm for the charm of Southern California.

It is not at all unlikely that some day Los Angeles' residential district will include all these seaside and foot-hill towns, and the entire intermediate territory, forming a city whose population, though not rivaling that of Greater New York, will constitute a great metropolis. Indeed, by the rate at which the seaside towns



PATIO OF THE HIGH SCHOOL.

Los Angeles, Cal.



Bungalow on the top of Mt. Wilson.
 Myron Hunt & Elmer Grey
 Architects, Los Angeles, Cal.

are now growing, conservative men have been led to predict that not only will Los Angeles some day have a frontage on the sea twenty miles distant, but that the entire shore from San Diego at the south to Santa Barbara, two hundred miles northward, will eventually form one continuous community like that of the shores of Long Island Sound.

However that may be, a bright promise of architectural possibilities is even now present at Santa Barbara, the northern limit of this new Riviera. The hills of Montecito near by, with their mountain drive skirting the sea, an equivalent of the old Corniche road, many widely traveled people declare to constitute the most beautiful country in the world. Heretofore a comparatively small portion of these hills have been available for country estates, on account of the scarcity of water, but a new water system now under way at Santa Barbara, for which a mountain is being tunneled and several million dollars spent, will supply them abundantly, and convert an extensive district into a possible Western Newport.

This suggests that Southern California is a land of great possibilities for landscape gardening in conjunction with architecture. A building and its setting are always inseparably connected, and especially must this be borne in mind in a land so rich in vegetable life. The beautiful cypress tree, the picturesque eucalyptus and the graceful palm, all so much coveted by the artist as adjuncts to architectural effects, grow here. And one may also have a perpetual bloom of flowers and the clipped hedge and vine-covered pergola green all the year around. The architect in Southern California must have a knowledge of these things, must know enough about them and the varying effects they produce to judge of their relation to his work, and to select with discrimination a

gardener to assist him in planning the surroundings of his buildings.

The question arises, what prospect there is that these great architectural possibilities in Southern California be turned into satisfactory realities. The factors which will determine it are its wealth, the caliber of its architects, and the degree of culture of its people. The twentieth century is a commercial era, and the American people are a money-making nation. They must inevitably be this before they have a great art. In past eras the means for such works lay largely in the hands of princes and popes. To-day, especially in America, it is chiefly with men of commerce, princes of finance. The money-making phase of American life is one not to be regretted; it is one to be looked upon as a stage toward a possible period of great accomplishment.

California already has some able architects, men of power and substance, who know a good thing when they see it, and are able to make good things of their own; but more of the same stamp are needed; men of original creative power, who respect tradition, but who are not slaves to it, are artistic, but not on that account unpractical, and practical, but not therefore inartistic; who have enough ability to get work, and, it may also be appropriately added, backbone enough to charge what they earn. For the item of professional charges is no small part of the problem here, as it is in the East. Years ago the American Institute of Architects established a minimum charge to be made by architects for certain classes of large buildings. This charge was five per cent. Their schedule called for higher rates on other classes of work, such as medium-sized residences, repair work, and the like. Architects of inferior ability cut these rates, using the Institute's minimum charge as a handle for the purpose of asking but five per cent. on all classes of buildings, and the general public fell under a misapprehension in consequence. There have been many architects since with both the inclination and ability to do good work who have slighted it, because unable to obtain the prices necessary for its execution. In architecture, as in any other line of endeavor, time and money are required to do the best work. It is absurd to charge the same percentage on a ten thousand dollar house, for instance, as on one costing but five thousand, when the latter entails practically the same number of drawings, the same amount of superintendence, and the same number of interviews with the client. The only rational basis for architects' charges is one which allows for a variation of percentage regulated according to the varying cost and nature of the building, and also one which does not level men of different ability who render different classes of service to the same plane of remuneration; in other words, a scale, sliding as to the

cost of buildings, and dependent in amount upon the comparative value of the service rendered. Men of standing in the profession in the East have long used such a basis, and the same system now prevails among the best architects of the West.

Co-operation on the part of the public is a very important factor in the furtherance of good architecture. The glorious art era of Florence owed as much to the patronage of the Medici as to the genius of Michael Angelo and Leonardo da Vinci. In fact, the architect is even more dependent upon the public than the painter



BUNGALOW AT HOLLYWOOD.

California.

Hunt & Eager, Architects.

or sculptor, for the latter *can* paint and model without commissions, while it is impossible to erect good buildings without some one to furnish the money for them.

The causes of the settlement and growth of Southern California are such as have been conducive to more culture than might be expected in a district so new. The population is made up very largely of Eastern people, who have in most cases brought taste and some degree of culture with them. After this praise has been bestowed, however, it must be said that there are plenty of men in California, as elsewhere, who are particular about their clothes or their equipages, but who entertain a slight estimate of the value of the artistic element in the buildings which they erect, considering that element as largely a matter of sentiment.

Art is the expression, through various mediums, of the most



PATIO OF A BUNGALOW.

Pasadena, Cal.

Green & Green. Architects.

joyous aspects and the best ideals of the world, and familiarity with its standards implies familiarity with the best standards of life. There exists a certain elect society, eligibility to which is dependent upon the degree of such conversance. An acquaintance on terms of familiarity with the muses of painting, sculpture, literature, music and architecture are the terms of admission. Seldom is there one thus acquainted who has not assimilated into his own nature some of the attributes or virtues of their standards and who is not able also to impart some of their charm to his fellows. The process of assimilation is the stuff of which culture is made and the ability to impart its atmosphere is what makes a man welcome in the company of the cultured. The presence or absence of the artistic element in a building one erects, is not therefor a matter of mere sentiment; it is one indication of a man's quality, his ability to enter into the highest life of his fellows, and those who ignore the value of the beautiful in their lives, bar themselves from the world's best society.

A recent writer has reminded us that monumental architecture comes with the culmination of an art era, not with its inception, and that the American nation has a long ascendancy before it. This is particularly true of the Pacific coast because of its extreme newness. It took centuries of enlightened human effort, in addition to its natural beauty, to make the Bay of Naples what it now is, and

there are places everywhere in Europe that literally exhale the fragrance of ages of interesting human life. As far as a history of such art influences is concerned, California might be said to be just starting. Practically the only emotion here aroused by historic man is that furnished by the North-American Indian. The mission fathers offer the one exception. One may imagine the redskin in years past emerging from the brush on the shore of the Pacific to view the panorama of sea and mountains and then withdrawing to his inland wigwam. But the Indian has left nothing which contributes to the interest or beauty of the landscape, and practically nothing which adds to the taste of the people who have taken his place. It should not be expected of California therefore that the same innate taste be found among its people as exists in more mature European countries where works of art have long been public heirlooms and good taste is an hereditary instinct. And all this, of course, more or less applies to our entire country.

There are plenty of indications, however, that the interests of art are flourishing in America. To one magazine devoted to the subject of art, architecture or house decoration, published twenty years ago, there are dozens to-day. Their continued issue is proof of their being read. The destruction of our forests may not be an unmitigated evil; the consequent shortage in wood supply will some day necessitate the use of more substantial building materials. Our



THE WAY TO LIVE IN SOUTHERN CALIFORNIA.



RAMONA'S HOUSE—SOUTH PORCH.



THE PATIO OF RAMONA'S HOUSE.

great international fairs are such as the world has never before seen, although even in this commercial age they have not been financial successes; they have been most conspicuously instrumental in the dissemination of taste. From the examples of the best of their buildings down to the humblest cottage built in good design we have an indication of potent forces at work spreading a wider realization of the utility and necessity of art in a finished civilization. Such influences are leading many to feel that we are to-day standing on the threshold of a new era in art, whose opportuni-



RAMONA'S HOUSE—SOUTH FRONT.

ties, enriched by the heritage of the past, include the greater possibilities of an age advanced in mechanical development far beyond the wildest dreams of its predecessors.

This new art era will nowhere have a more appropriate setting than in Southern California. Nature has here provided for it a background of the rarest beauty. Its distinctive architecture, though at present but vaguely outlined, here as elsewhere, is being sketched in with the erection of every new building of merit. May the completed picture fulfil its present fair promise.

Elmer Grey.

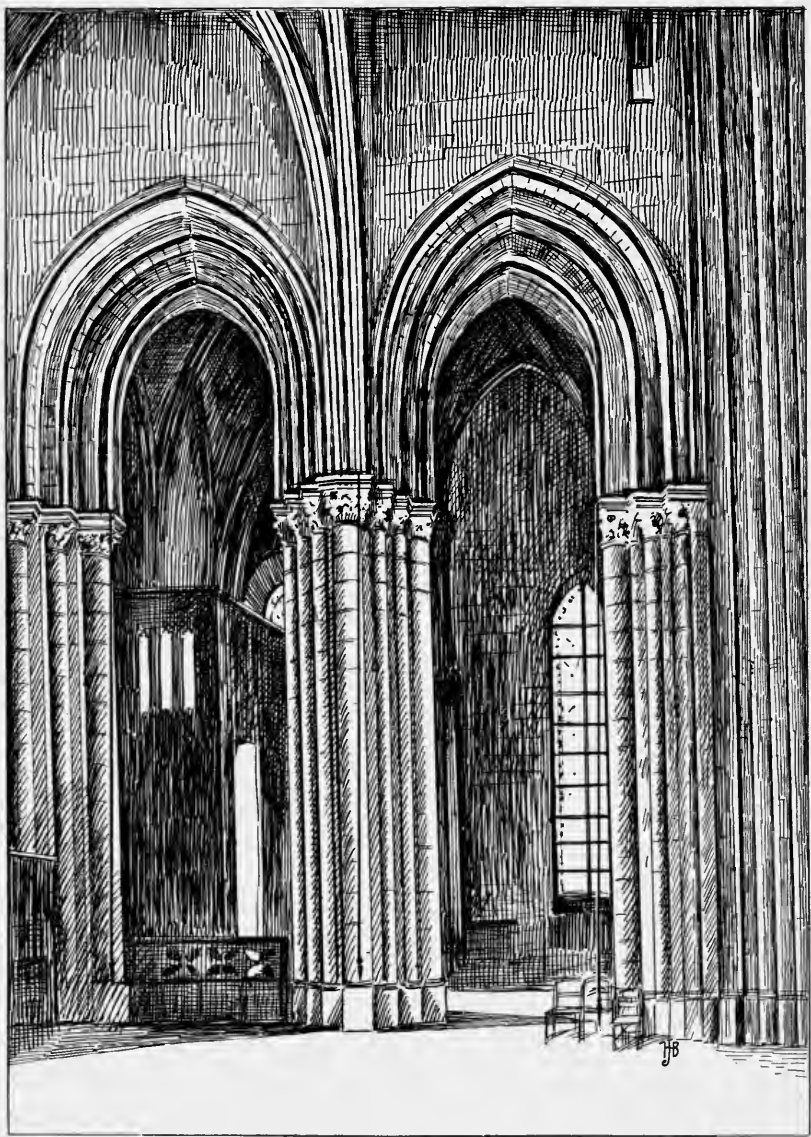


FIG. 1. NOTRE-DAME. VIEW ACROSS THE NAVE FROM SOUTH TO NORTH; NEAR THE FAÇADE. ACCURATE DRAWING FROM THE SURVEY PHOTOGRAPH.

Compare with Fig. 2, in which the same window is seen.

ARCHITECTURAL REFINEMENTS IN FRENCH CATHEDRALS.

Fourth Paper.*

NOTRE-DAME.



IN two preceding papers, the first of which was partly devoted to Notre-Dame at Paris, while the second was wholly devoted to this Cathedral, we have described, first, its system of widening and curving the vertical lines of the nave (November Number), and second, the gallery bends in elevation, together with the constructive deflections from the perpendicular in the east and west direction, of the triforium piers and columns (December Number).

At the close of the last paper we had reached the description of the tower constructions as regards the great piers of their interior angles.

From this description it appeared that these piers lean west about 18 inches in a height of about 80 ft., curving toward the perpendicular in their upper portion. It was also found that the masonry courses of the interior walls, as well as the gallery parapets, are bent downward from the fourth bay (counting from the organ loft), so that they are normal in rectangular direction to the leaning piers. Thus, if any settlement had affected the piers, it must have begun at the fourth bay from the organ loft; but it was shown by the published illustrations and by the photographs in the Brooklyn Museum that no fissures amounting to 18 inches, or of any appreciable amount, have been repaired, either at the fourth bay or at points intermediate between that bay and the piers of the interior tower constructions. The account of these observations is now continued, in the direction of the façade.

Piers of the Tower Constructions.

Fig. 1 of this paper connects with Figs. 1, 3, 4, of the last article, and shows the bays of the nave on the west side of the north tower pier, as taken from the pavement, whereas in the last article the triforium bays on its eastern side appeared in Figs. 3 and 4 of that article (December Number). From these illustrations and from the measurements quoted in connection with them, we shall proceed to develop the facts concerning the tower con-

*Continued from the December Number. The illustrations of these papers are from photographs of the Brooklyn Museum Series of 1903.

structions, which will then be related to the façade construction on the one hand and to the points already made known for the main body of the nave, on the other.

As seen in Fig. 1, the pier of the north tower construction leans 0.44 in about 20 ft. from the pavement, up to the height of the capital, from which the plumb-line is suspended, and its mate has a similar lean. That part of it which is seen in Fig. 3 of the December Number, on the left of the triforium on the north side of the nave, leans 0.20 in a height of $10\frac{1}{2}$ ft. The entire westward lean of this pier and its mate (which leans 0.14 in the corresponding $10\frac{1}{2}$ ft.) from the pavement to the springing of the nave vaulting, is about 18 inches, as just mentioned, and as accounted for in detail in the last paper.

It will be noticed that these companion piers are imbedded in the solid wall on their west sides, from the nave arches up, and it will be remembered that columns which are only 3 ft. distant lean off in the opposite direction; 0.14 in the north gallery and 0.10 in the south gallery, in a height of $10\frac{1}{2}$ ft. The masonry of the walls can be studied, block by block, from pavement to vaulting, in the Brooklyn photographs.

It is a matter of fact of importance that the leans of these piers, which are parts of the tower constructions, are paralleled by others in the corresponding exterior tower buttresses. This appears by referring to the diagram, Fig. 3, and we shall now begin to draw nearer to the exterior tower construction.

To return to Fig. 1, we have so far confined our attention to the pier on the right of this picture. We now include in our account, and in its illustration, the pier in the centre and the pilaster on the left, which is engaged in the wall of the façade. The leans, of the same amount as just quoted for the right-hand pier (0.44 in about 20 ft.), continue, and we shall presently find this lean repeated on the façade exterior.

It was in the last few days of my stay in Paris that the exposure represented by this drawing was made. During the forty-five minutes which the exposure required, while standing near the camera, glancing carelessly about, it suddenly appeared to me that the pilaster which is engaged in the side wall, and which projected, in that particular line of vision, slightly beyond the central pier (as it does in Fig. 1), and which was otherwise mainly concealed by it, was accurately in line with its inclination. When this observation was tested by the plumb-line, it appeared that both of the pilasters,* which are engaged in the side wall, and which are in no wise exposed to any east and west masonry movement, exhibit parallel leans, with measurements corresponding to those already given.

*Such pilasters are technically known as "responds."

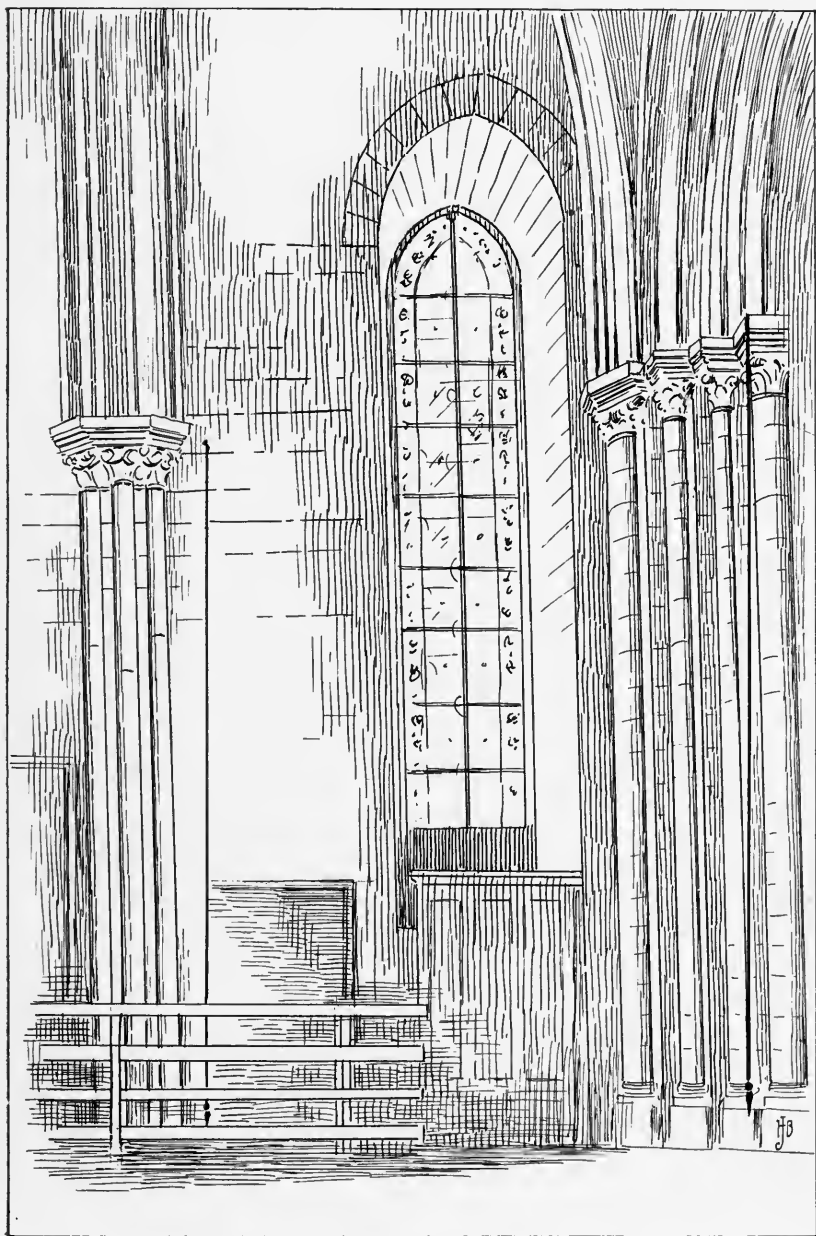


FIG. 2. LEANING WINDOW AND LEANING ENGAGED PILASTERS. LEFT AISLE OF NOTRE-DAME, NEAR THE ENTRANCE. ACCURATE DRAWING FROM THE SURVEY PHOTOGRAPH.

Compare with Fig. 1, in which the same window is seen.

These leans are also found in the construction of the windows, one of which appears, with both pilasters, in Fig. 2. The other window, farther to the left is included in one of the Brooklyn exhibits. These arrangements are found on both sides of the church.

Two enlarged photographs, each 18 in. by 22 in., are to be seen in Brooklyn, verifying the facts as shown in Fig. 2.

These astonishing phenomena demonstrate the same subtle purpose of concealing or obscuring the primary leans, which has already been described, for the transepts of Notre-Dame and Amiens in the November Number. It will be remembered that a similar device has been found at St. Quentin, and that it has been illustrated in publication for St. Loup at Chalons in the August Number. It should be added, however, that the concealment here in question may be related, with equal or greater probability, to the leans of the exterior buttresses, with which these windows are immediately in contact, as we next proceed to show by Fig. 4.

The Towers.

It was several days earlier that I had photographed the leaning façade (Fig. 5),* but I had not, up to this time, observed that the towers repeat this inclination.

Fig. 3 scarcely exaggerates the facts, which are accurately represented, as regards the amount of pitch, in the lower façade, in Fig. 5. The pitch of the main front, up to the Gallery of Kings, is repeated in both buttresses on the sides of both towers, as well as in the projecting abutments between them, which contain the tower stairways. These, however, curve toward the perpendicular (just as the interior piers of the tower construction curve toward the perpendicular, and just as the façade also appears perpendicular above the Gallery of Kings). The towers strike the true perpendicular at the point where they separate from the façade, just above the line of the eaves of the roof.

The pitch and the curve of the tower buttresses are shown by four large photographs in the Brooklyn Museum. Two of these are reproduced in Figs. 4 and 6. These photographs include, of course, the exteriors of the leaning windows, which are shown by Fig. 4. They also connect with a photograph of 2 by 3 ft. dimension for the leaning façade, from which Fig. 5 has been taken.

Before turning to the façade we once more specify the probability that the leaning windows, which are directly adjacent to the tower buttresses, were given the same pitch as a device of concealment for the exterior pitched and bending lines. (See Fig. 4.) The

*It should rather be called a bending façade, as the lean bends to the perpendicular higher up.

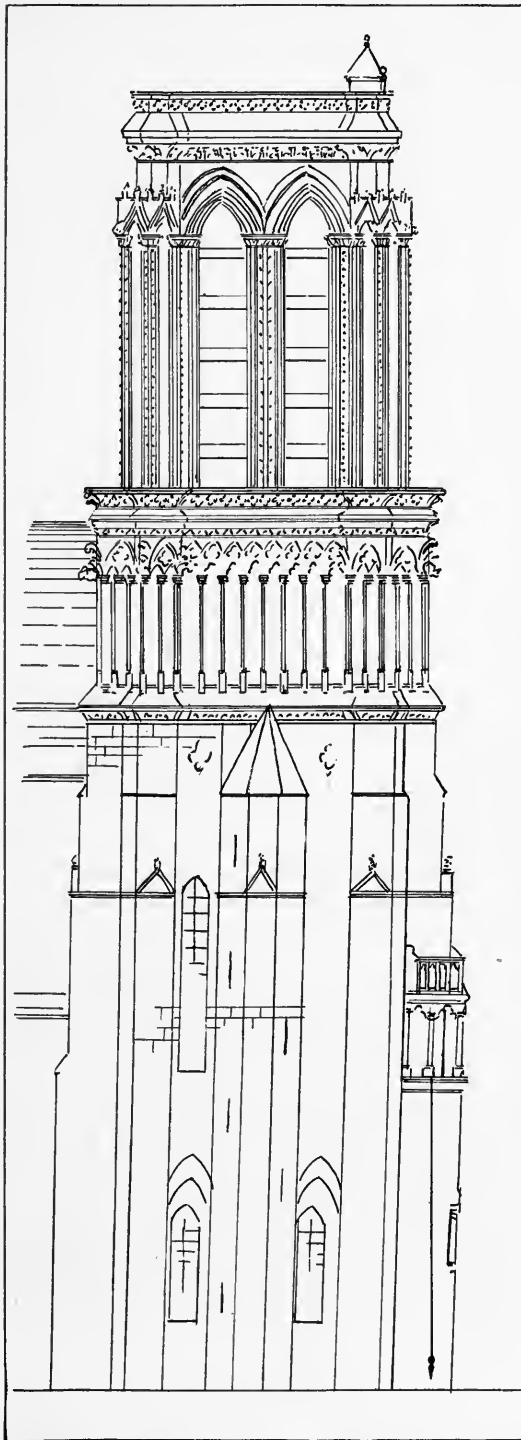


FIG. 3. VERTICAL BEND OF THE NORTH TOWER OF NOTRE-DAME. SLIGHTLY EXAGGERATED DRAWING.

Compare with Fig. 6.

interior wall pilasters may have been inclined to correspond with the windows as well as with the interior piers.

The Façade.

The forward pitch of the façade, up to the Gallery of Kings, is about 11 inches in about 40 ft. The pitch of the buttresses on the sides of the towers is the same, modified by a curve toward the perpendicular above the level of the Gallery of Kings.

The suggestion of settlement is inevitable, and is met, to begin with, by all the explanations which have been advanced in the last article and which have been re-summarized in the opening of this paper, regarding the bends of the gallery parapets and of the interior masonry courses at the fourth bay from the organ loft (sixth bay from the entrance). If the façade went over to the west there must have been fissures in the masonry. These fissures must be sought where the settlement began. If any settlement took place, it began at the sixth bay from the entrance (see December Number), because the interior masonry courses slope downward in a direction normal to the leans of the piers, from that point. In Fig. 1 of this paper observe also this same slope above the arches, and the lowering of the westernmost arch which is connected with this slope. The theory of settlement is, therefore, forced to demonstrate that the bases of the interior responds (or engaged pilasters) at the façade, and the corresponding base mouldings of the exterior façade have sloped downward to a corresponding amount. (I have shown by the measurements in the December Number that the pavement does not slope, because the bend of one gallery parapet was measured by level in the gallery, and the bend of the other gallery parapet was measured by plumbing to the pavement.)

As the spires are perpendicular (see Fig. 6 and compare Fig. 3), the façade and the lower tower constructions must also have settled before the spires were constructed, which seems improbable. In fact, so many bending façades are now known that it somewhat taxes one's credulity to believe that they have all settled before the weight was added which might have caused a settlement, and that no records have survived of these curious accidents, which were never repeated after the load was increased. It is also incumbent on the sceptic to explain how the side buttresses of the towers could have settled in curves. This is surely pushing the theory of plastic masonry to an absurd extent. In Fig. 6 the camera is too far to the left, and the view is too small to show these curves. The fact of the lean with return bend to the perpendicular is, however, easily apparent in this view.



FIG. 4. NOTRE-DAME. DETAIL OF THE EXTERIOR NORTH TOWER CONSTRUCTION.
Compare with Fig. 3 and Fig. 5. Note the window ledge as level.



FIG. 5. THE LEANING LOWER FAÇADE OF NOTRE-DAME.

Note the plumb line. Note the cornice under the Gallery of Kings as rising from left to right instead of sloping downward, as would be the case if a settlement had occurred.

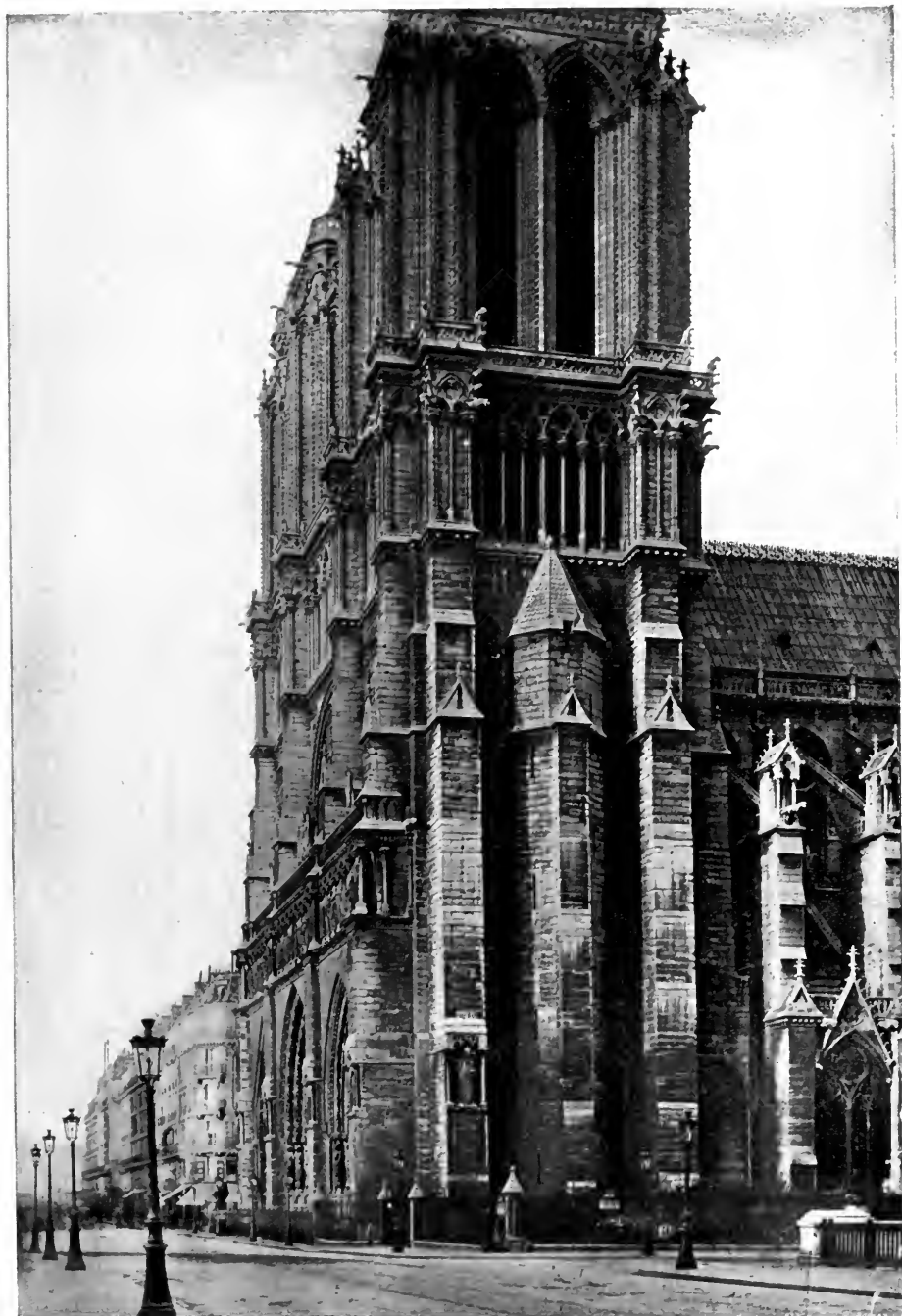


FIG. 6. THE TOWERS AND FAÇADE OF NOTRE-DAME; FROM THE SOUTH.

By sighting from the base of the picture the bend, by which the construction of the south tower is brought into perpendicular, can be easily perceived.

In Fig. 4 we notice that the window sill is level, and therefore constructed obliquely with reference to the leaning vertical sides. This is shown with great clearness in the 2 by 3 ft. enlargement from the same negative in Brooklyn (No. 102). If the tower had settled the window sill would dip downward to the west.

In Fig. 5 we reach a crucial observation, regarding the cornice which marks the beginning of the Gallery of Kings, and which is carried around the side of the north front buttress. It will be noticed that it does *not* slope downward towards the west, as it would if a settlement had taken place. It rather rises slightly, and so do the masonry courses directly under it. In Fig. 6 we notice that the same construction holds of this cornice on the south side of the south front buttress. Although the dimensions of this picture are rather small for the observation of this fact, it is more clearly shown in details for the south side of the west front, of the Museum series of 5 by 7 prints (Nos. 206, 208).

Special attention should be given to the plumb-line suspended against the side of the buttress near the centre of the picture in Fig. 5. The column directly over it is perpendicular, and so are the other corresponding columns above these buttresses. In other words, the bend of the façade begins at this point. This is much more clearly shown by the enlargements in Brooklyn. The bend to the perpendicular is also well shown from the south side in No. 204 of the Museum 5 by 7 prints.

The second story of the west front (which includes the rose window) steps back from the lower front (as shown by Figs. 6 and 7). We can, therefore, understand that no risk of stability was involved in the lower lean. My observation of this second story is that it is closely perpendicular, like the columns of the Gallery of Kings, but I had no time to verify this observation by plumbs or special photographs.*

The multiplication of arguments on the question of settlement hardly seems worth while, and it may even seem to indicate want of confidence in separate individual demonstrations, any one of which ought to be sufficient. However, modern prejudice is so inveterate in these matters and antiquarian timidity is so natural in the acceptance of revolutionary facts that we may draw attention to one more point.

Viollet-le-Duc has long since overthrown the wholly unsubstantiated idea that piling was ever employed in the foundations of

*My time was so limited for the completion of these observations that the negatives for Fig. 4 and several companion pictures were taken after five o'clock on the day before sailing from Boulogne. It is for this reason that the plumb-line which establishes the perpendicular in Fig. 4 is suspended from the railing outside the towers instead of from a window. The tower was closed at five o'clock, so that it could not be entered for the suspension of a longer plumb-line, and I sailed from Boulogne the next morning.

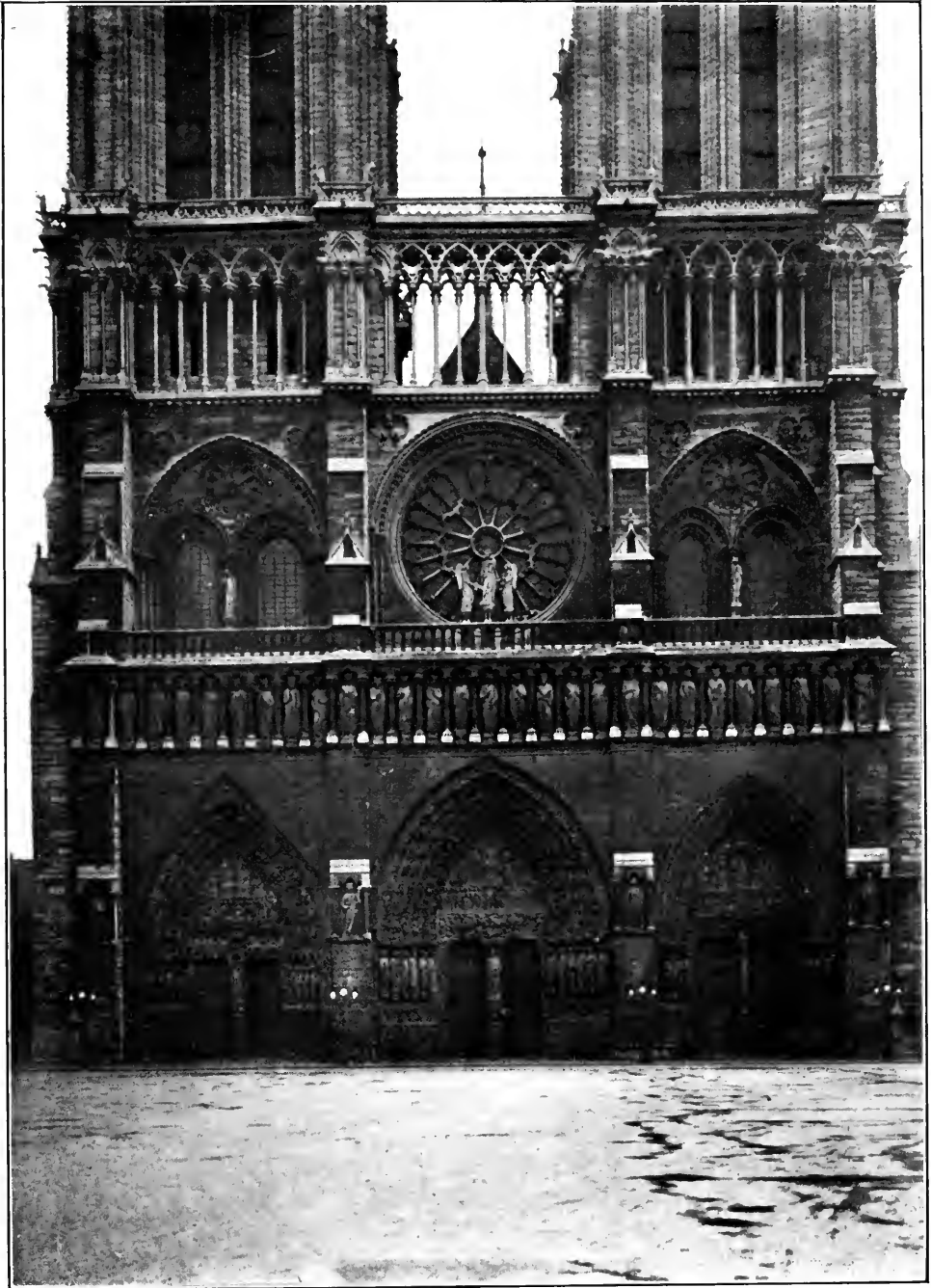


FIG. 7. THE FAÇADE OF NOTRE-DAME.

View showing, in the upper galleries, the appearance of a bend in elevation, which is an optical effect of the bend in plan which is seen in Fig. 8.

Gothic cathedrals. He has also carefully examined and illustrated the extraordinary, elaborate, and costly precautions which were taken in laying the foundations of the Cathedrals of Amiens and of Paris. In face of these well-known facts about the foundations of Notre-Dame, the settlement theory has to face the fact that the settlement began, if at all, not under the weight of the towers, but at the sixth bay from the façade; that in a distance of some 80 ft. from the sixth bay to the façade this settlement must have amounted to some 18 inches. For if the piers went over 18 inches in a height of 80 ft. the corresponding settlement between the sixth bay and the façade could not have been less than 18 inches in a corresponding distance of about 80 ft. (The actual distance from the façade to the beginning of the sixth bay is close to 90 ft.)

The settlement theory has also to meet the difficulty that, as the columns of the Gallery of Kings are perpendicular, and as the spires of the towers are also perpendicular, it is necessary to prove that the massive foundations could not withstand an ordinary and inconsiderable load, and that, after yielding to the weight of this inconsiderable load, they have subsequently resisted successfully the weight of the much greater load which was subsequently added.

So much has been said in earlier publications on the subject of bending façades that we may shorten the discussion of purpose here, but it is important to press the point that, in three separate instances, certificates have been published from the engineering experts in charge of the buildings, verifying the arrangement as constructive and intentional.

The bending façade of the Pisa Cathedral was very carefully published, as regards surveys and constructive proof, in the *Architectural Record* for March, 1898; Vol. VII., No. 3, in an essay entitled "The Problem of the Leaning Tower of Pisa." The certificate regarding this façade was published in the *Architectural Record* for October, 1902, and also in *Museum Memoir* No. 1. Both articles were entitled "A Renaissance Leaning Façade at Genoa." These publications also contain, besides this certificate and another from the architect in charge of the Genoese church of S. Ambrogio, illustrations and measurements for the vertical bends in the façade of St. Mark's at Venice. The certificate from the architect then in charge of St. Mark's was published in *Museum Memoir* No. 2, and in the *Architectural Record* for November, 1903; Vol. XIV., No. 5. These various publications include mention of a series of other similar constructions, with illustrations and measurements.

Explanations as to motive must naturally be based on the obvious results of such arrangements, and on their analogies with

other constructive subtleties. To throw forward the lower portion of the façade is to improve the effect of its decorative details, by diminishing the appearance of foreshortening. It also increases the apparent height to a very considerable extent, in case of near approach. In quartering views, or side views, the bending line is also artistically superior to the straight line.

It also appears probable that all inconspicuous variations of architectural lines from the position or direction in which the eye naturally expects to find them, tend to produce an illusive optical vibration or mystification which is conducive to an effect of "life."*

Notre-Dame varies from hitherto published examples of bending façades in uniting a system of westward leans in the interior with this exterior peculiarity. The Italian churches which have the bending façades have no connected spires or towers, and no other instance of a bending line in towers has, so far, been observed in France. The west façades of the other French churches which were visited in 1903 appeared to be generally normal, with the following exceptions:

Notre-Dame la Grande, at Poitiers, has a façade with delicate lean and return curve to the perpendicular (No. 112 of the Brooklyn Catalogue and exhibit). The Renaissance façade of the Gothic Cathedral of St. Malo has a constructive lean of about 5 inches in 50 ft. This was first made known to me by Commander Hugh D. Rooper, of the British Navy. I made a trip to St. Malo to verify the observation. The Sainte Chapelle, at Paris, which has no interior refinements, has a well-defined constructive forward inclination of about a foot in a height of about 38 ft., with return bend to the perpendicular. Several good negatives were made of it, but no enlargement has yet been exhibited.

The best analogies with the Notre-Dame façade, so far known, are those which are offered by the Italian examples—the Pisa Cathedral, St. Mark's at Venice, S. Michele at Pavia, S. Ambrogio at Milan, and other buildings, as previously published.

Bend in Plan of the Gallery of Kings.

In Fig. 7 the reader is requested to note the horizontally bending line of the uppermost parapet and gallery of the façade (the one which unites the towers over the arcade of columns and arches). On the left side of the right (south) tower the parapet changes

*M. Choisy's "*Histoire de l'Architecture*" uses the following words in his account of the effect of the Greek deflections from rectilinear building: "Que l'on en ait ou non conscience, il résulte de cet allure inusitée des lignes une impression étrange et neuve. Non averti le spectateur sent quelque chose d'insolite; averti, il reconnaît une attention délicate qui le charme; les contours prennent, grâce à cet recherche, un air de distinction auquel le goût ne saurait demeurer indifférent; l'édifice échappe à l'aspect vulgaire des constructions à lignes rigides, il s'empreint d'un caractère imprévu et neuf qui se soustrait peut-être à l'analyse mais nous saisit alors même que nous en ignorons le vrai sens et la cause."

direction, and becomes slightly oblique, rising from left to right. On the right side of the left (north) tower we notice another change of direction, and the parapet returns to the horizontal or inclines slightly below it, from right to left. In the parapet next below we see the same changes of direction. In the still lower gallery, the Gallery of Kings, these deflections are not visible in the given photograph. If, however, we came nearer to the building than the camera was placed when this photograph was made, we should begin to see a similar bend in the Gallery of Kings, while the bends of the upper galleries would become much more strongly defined, the uppermost being always the strongest. As we move farther back from the building, the bends will diminish and tend to disappear. They will disappear entirely from any point of view which is exactly level with the given gallery.

These bends are an optical illusion. They do not exist at all as the eye sees them, or as the photograph—No. 7—represents them, and the eye perceives them in varying strength according to the height of the given gallery, and according to the distance of the spectator from the façade.

These apparent bends in elevation are all produced by a bend in plan of the façade, which begins in the Gallery of Kings, and which amounts to 1.20 (Fig. 8). This bend continues throughout the entire façade in all its upper faces and stories, and may be noticed by the visitor as having the same actual amount in each successive gallery.

In optical effect the bend in plan produces, when viewed below its own level, the effect of a bend in elevation. At an angle of 45 degrees an advance, from right to left, of 1.20 in the middle vertical section of the façade, produces the effect of a rising obliquity from right to left of the same amount. At an angle less than 45 degrees, that is, at a greater distance, the obliquity decreases. At an angle greater than 45 degrees, that is, in nearer approach, the obliquity increases, in geometrical ratio to the amount of change in the angle.

Wave lines, in elevation, of alignment in pilaster capitals or in the capitals of columns, are occasionally found in the Pisan Romanesque. They occur on the exterior sides of the *Pieve Nuova*, at *S. Maria del Giudici*, near *Lucca*, and in the north wall of *Pisa Cathedral*. There is a wave line of columnar capitals to be noticed in the south gallery at *Pisa*. Wave lines of plan in interiors have been published for the *Fiesole Cathedral* (*Architectural Record*, Vol. VI., No. 4, p. 488). They exist in *St. Ouen* at *Rouen*, and in the *Cathedral of Lyons*.

Curves or bends in plan, when seen laterally above or below the level of the eye, are frequently translated optically into deflections



FIG. 8. INTERIOR OF THE GALLERY OF KINGS, NOTRE-DAME.

View looking North and showing a double bend in plan, which is repeated in the upper galleries.

in elevation, rising or falling in elevation, according to the position of the spectator and according to the direction of the deflection. It appears very improbable that these effects should not have been familiar to mediæval builders.

The artistic value of such deflections will appeal to many, without farther explanation, but such explanation may be offered presently, and with relation to the following additional instances of asymmetry in Notre-Dame.

Gallery Curves in Plan.

The galleries of Notre-Dame curve in plan. The left (north) gallery curves concave to the nave. The right (south) gallery curves convex to the nave (Fig. 9). This curve is repeated, with the same amount of deflection, in the gallery wall, in the vaulting of the gallery (Fig. 9), and in the clerestory wall, which rests on the triforium piers and columns. Fig. 10 shows the outside of this clerestory wall, and the stone roofing slabs which cover the vault of the gallery below. The curve reappears in these slabs as a bend, which is very clearly shown by the photograph.

The amount of this curve, as indicated by the surveyor's rod, which lies across the tape, in Fig. 9, is $9\frac{1}{2}$ inches.

In the left (north) gallery the curve of the outer wall is inconspicuous. The stationary benches which fill the gallery made it impossible to photograph the stronger curve in plan concave to the nave, in the parapet bordering the nave.

Notre-Dame is thus found to be once more similar to the Pisa Cathedral, for the Pisa gallery parapets also curve in plan, besides bending in elevation (*Architectural Record*, Vol. VII., No. 1, p. 87). Such curves or bends in plan are also especially interesting in the string-courses above the arcades in the Cathedrals of Siena and Cremona. They produce the optical effect of curves or bends in elevation, either rising or falling, as the case may be. Thus I was led into the error of announcing bends in elevation in the clerestory string-courses at Cremona, after observations in 1895, which were corrected in 1901, when it turned out that the bends were actually in plan, although giving the illusive effect, which was announced as a reality.

The Deflected Choir.

The deflected choir of Notre-Dame is shown by the plans of the folio "*Monographie de Notre-Dame de Paris*," published by Morel, but the gallery curves are not included in these plans. The deflected choir is ascribed by the text, as is usual in such cases, to



FIG. 9. NOTRE-DAME. SOUTH GALLERY, LOOKING EAST.

View showing a curve in plan of the alignment of piers on the left, which is repeated in the exterior parapet of the nave, in the ceiling of the vaulting, in the exterior wall, and which reappears in the bend of the roofing slabs above the vaulting. See Fig. 10.

the symbolical representation of the bending of the head of the Saviour on the Cross.

It has been elsewhere shown* that the asymmetric plans of Italian churches present many phases which have no relation to the plan of the Cross, and frequently do not even include it. I have also suggested that the sentimental or symbolic explanation above quoted, which is not mentioned by any mediæval record, and which is not verified in any other way, may either be a modern invention or a traditional explanation, originally given by some individual master-mason (or habitually given by master-masons) as pleasing to the clergy, and saving the trouble of æsthetic explanations.

The constructive intention of the deflected choirs has rarely been doubted by antiquarian authorities. It is the only phase of intentional cathedral asymmetry which has so far been generally recognized and published. In optical results it develops the same effects of picturesque variety, of mystery, and of illusive optical vibration which hold of other distortions of plan and of elevation, and which are only symbolical of artistic good sense.

Although the explanations of Choisy and Viollet-le-Duc both suggest accidental causes, this appears to be the result of their conviction, with which I thoroughly agree, that symbolism is not the explanation. Hence they naturally chose the only alternative explanation which had so far been offered. Both of these authorities have otherwise expressed their constant confidence in the scientific knowledge and engineering ability of the mediæval builders (note the quotations from M. Choisy in this paper farther on). It may be that M. Choisy might modify his previous views, after considering the plans and arguments which I have published in the *Architectural Record*, Vol. VI., No. 3, for 1897, "Constructive Asymmetry in Mediæval Italian Churches."

The Point of View.

As the magazine publications of the current, and three preceding, numbers may find readers who have not been previously familiar with the subject of cathedral asymmetry, it is desirable not to confine these publications wholly to bare descriptions, without reference to the philosophy or possible explanations of the phenomena. For this reason readers who are familiar with the earlier publications must excuse some repetition of points presented in them. On the other hand, those who are new to the subject must excuse brevity and a rather summary disposal of the question as to what all these facts really amount to, because in many publications, both in and outside of this magazine, this question has already been fully considered for other buildings.

**Architectural Record*, Vol. VI., No. 3, p. 405.

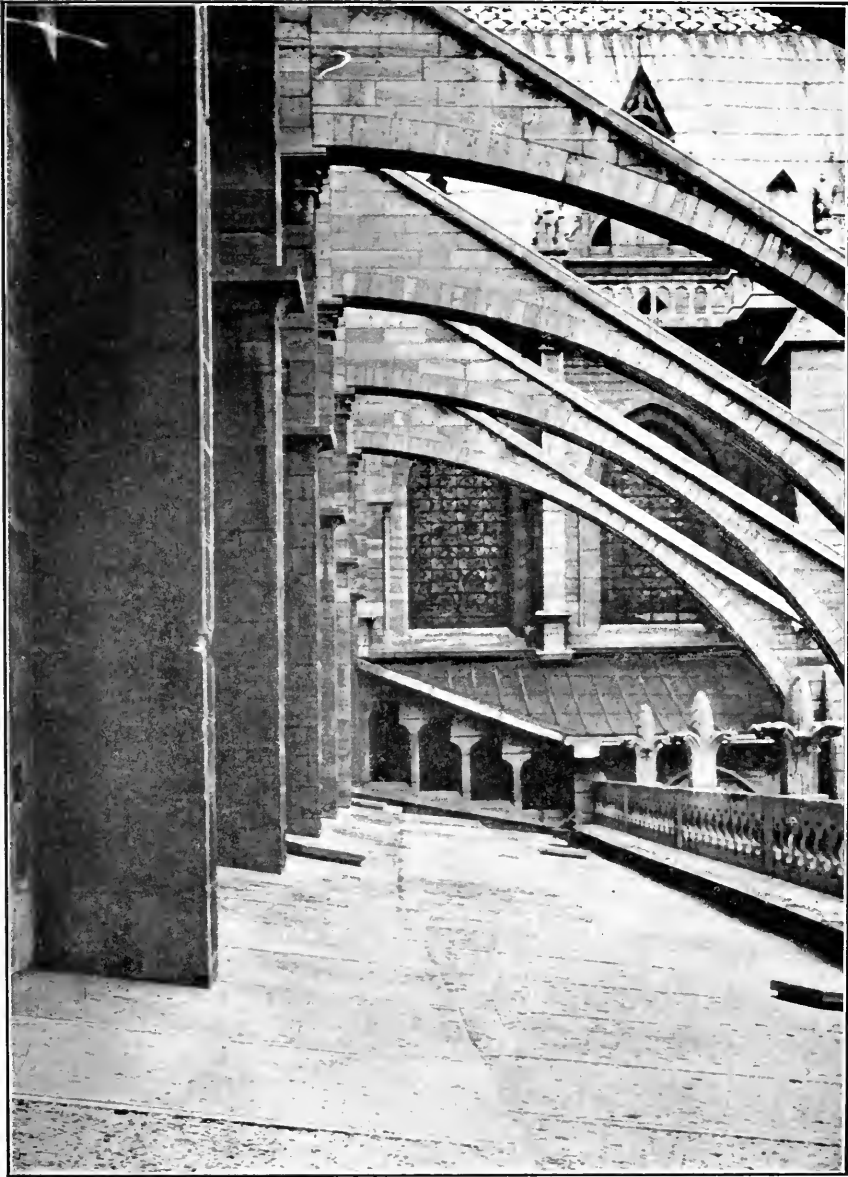


FIG. 10. NOTRE-DAME. ROOF OF THE SOUTH GALLERY, LOOKING EAST.

View showing a bend in plan in the roofing-slabs, which corresponds to a curve in the wall and in the alignment of buttresses. This is a continuation of the interior curve shown by Fig. 11.

It is, however, probable that the present publications for Notre-Dame will draw additional students into this field of interest, and that it will begin to assume larger proportions in antiquarian estimation, when it is found that Italian buildings are not the only ones involved. Hence the preceding matter-of-fact account of the extraordinary constructive phenomena of Notre-Dame may be considered as really demanding some rehearsal of the whole matter involved.

Philosophy of Architectural Refinements.

Modern architecture has, since the close of the sixteenth century, gradually drifted into a mechanical formalism of mathematically exact symmetry and of monotonous repetition of details, which contrasts very unfavorably with the work of older periods. This older work was very largely dependent upon accidental conditions and causes for its more spontaneous, more varied, and more picturesque character. The difference between old and modern work is largely determined by changes in social organism and business system, which have eliminated the accidental element.

Aside from this accidental element, the builders of the Middle Ages frequently practised predetermined and carefully considered constructive arrangements, which were intended to make their buildings more imposing, more attractive, and more interesting to the eye. The philosophy or substance of this attractiveness is essentially the same as that which inheres in the accidental element, and is similar to that which inheres in the necessary irregularities of hand-work, as contrasted with machine work.

The great subtlety and extraordinary constructive skill and forethought which are frequently displayed in these arrangements, when considered in connection with their inconspicuous and really unobtrusive character, justify us in applying the term of "architectural refinements" to these arrangements.*

In certain cases optical effects were undoubtedly studied by these arrangements, such as an illusive perspective in the apparent distance of the choir, or the avoidance of a contracted appearance in the upper part of church interiors.

In other cases, as in the remarkable arrangements of the south and north walls at Pisa, or in the galleries of Notre-Dame, it may be a debatable point how far optical effects were studied or how far the simple principle of the agreeable and picturesque effect of varied arrangements may serve as explanation. In such cases the debate is largely one of the use of words, or a debate as to how

*See the article on "Refinements," by Mr. G. L. Heins, in the "Dictionary of Architecture," edited by Dr. Russell Sturgis, and published by Macmillan.

far artistic intuition and inspiration may have taken the place of a knowledge of optical laws or a deliberate calculation of optical effects.

As a matter of fact, wherever the main lines of a cathedral are distorted in such a way that the distortion is not obtrusively obvious, and is not inevitably detected by the wandering eye, there must be an optical mystification, which adds to the interest of the building.

It appears to be a self-evident proposition, that where distortions were laboriously and carefully constructed, they must have had a purpose.

It appears also to be a self-evident proposition that the effects which were undoubtedly obtained were the effects which were proposed, provided intentional construction be proven. As to the language which is used in describing those effects, it matters little. The buildings which exhibit them have long been praised as models of architectural beauty and power. The character of those buildings is not changed because some additional measurements have been taken and some additional photographs have been made, from special points of view or of specially accurate character.

Such photographs have very much the same relation to the buildings as the isolated pictures of a vitagraph have to the entire motion which they aid in representing. It is especially to be urged upon new-comers in this topic that the effect of the photographs on the eye is quite apart from the effect on the eye of the arrangement which the photograph represents. It inheres in the dimensions of a photograph that the eye seizes the entire arrangement at one glance, whereas it inheres in the dimensions of the building that the arrangement as a unit is overlooked, because it is perceived by a succession of glances. Thus the photograph serves as an excellent detective, but for that very reason it fails in showing the effect of the arrangement which it represents.

In a multitude of cases the photograph makes conspicuous, and therefore ineffective, the really delicate device of the original building.

I have frequently found it difficult or impossible to persuade those who are inspecting certain photographs or plans, that the arrangements represented are not instantly obvious, and consequently ineffective, in the original buildings. As a matter of fact, a choir deflection of 13 ft. is habitually overlooked at Cremona, so is a narrowing in plan of 23 ft. in S. Stefano at Venice. A diminution of pier spacings to the extent of 13 ft. is wholly inconspicuous in Sta. Maria Novella at Florence.

And yet representations of these facts by plans appear very abnormal. A photograph showing the perspective illusion at Fie-

sole (dropping of arches 3 ft. toward the choir) appears equally abnormal, although the facts are uniformly overlooked in the church.

How easy it is, then, to realize that the widening of St. Mark's at Venice (3 ft.), or of Amiens Cathedral (3 ft.), or of Notre-Dame (2 ft. at the transept), should be inconspicuous in the original buildings. The taste which rebels at constructive asymmetry is really a taste which only rebels at the abnormal appearance of the plans and photographs.

No personal distaste or dislike can be considered of importance in regard to the inconspicuous distortions of mediæval cathedrals, because the buildings themselves have been objects of unqualified admiration to the greatest critics. The character of these buildings is not changed because we understand better than we did the explanation of their enticing mystery. In spite of Mr. Ruskin's weakness as an authoritative architectural historian and critic, his luminous and convincing rhetoric in the "Lamp of Life" will always be a standard reference for the spirit which inspired the asymmetric arrangements of mediæval building.*

Notre-Dame as Compared With Other Cathedrals.

The philosophy of this investigation may be simply stated, as has just been done, but one cannot avoid a feeling of stupefaction, or it may be even difficult to avoid a feeling of profound incredulity, in face of the phenomena of Notre-Dame. As connected with others previously published, they imply a more profound and more destructive revolution in the transition from the Middle Ages to modern times than has hitherto been realized. Hence, my own disposition is to insist upon the evidence for the constructive facts, and to allow these facts to force their own inevitable conclusions. Wonderful as the phenomena are, the only point really to be debated is whether they are constructive. The interweaving and character of the evidence on this head appear to be solid and sub-

*M. Choisy's "Histoire de l'Architecture" also contains several inspired passages on the philosophy of mediæval asymmetry, from which we select the following:

"Ce préjugé qui confond l'harmonie avec l'uniformité est le fait des architectures vieilles; les architectures jeunes et vivantes qui croient à leurs principes, ne connaissent pas ces compromis." Vol. II., p. 340.

"Ces irrégularités sont visiblement intentionnelles. Il en est qu'il faut mettre au compte des malfaçons. Entre les unes et les autres la distinction est parfois délicate; mais si l'on songe à l'esprit chercheur, presque subtil des architectes gothiques, on demeurera convaincu qu'il y eut plus souvent calcul que négligence." Vol. II., p. 410.

"D'une manière générale, les architectes du moyen âge évitent la froide régularité; S'ils admettent pour l'ensemble un parti symétrique, ils savent rompre la monotonie par des détails qui se diversifient à l'infini."

"Notre-Dame a sur sa façade trois portes élevées en même temps; de celle de gauche à celle de droite les effets de masse seuls se pondèrent; à chacune une physionomie distincte."

"Ces différences donnent à la composition une variété qui a son charme, une sorte de sympathie nous attache à ces œuvres où l'auteur a dédaigné la trop facile ressource des poncifs, ou chaque partie a coûté une étude à part, un travail individuel; au lieu de symétrie, il y a pondération, et l'unité d'impression n'y perd rien." Vol. II., p. 412.

stantial. There is, however, a disposition of the human mind which, in face of what appear to be even absolute certainties, will still withhold final assent, because no counterparts of the phenomena are known. It is therefore necessary to refer, as has been done, to earlier publications for other buildings. The territory which has been covered by these investigations is limited when the whole of Europe is considered, but there are two other churches so far known which are not less remarkable than Notre-Dame for the variety and subtlety of their asymmetrical arrangements. The facts which hold of the Pisa Cathedral and of St. Mark's at Venice have been elsewhere described at considerable length. As regards the individual features of asymmetry in Notre-Dame, these have, generally, individual counterparts of considerable number in other mediæval churches.

Wm. H. Goodyear.



BROOKLYN MUSEUM EXHIBIT AT THE BOSTON PUBLIC LIBRARY OF
PHOTOGRAPHS OF ARCHITECTURAL REFINEMENTS;
APRIL 21ST—MAY 15TH, 1904.



SHOP OF THE HAVANA TOBACCO CO.

Photo by Arthur Hewitt.

St. James Building, New York City.

McKim, Mead & White, Architects.

"THE FINEST STORE IN THE WORLD."



SOME years ago a sign appeared in the show-windows of the store in the St. James Building, on the southwest corner of Broadway and Twenty-sixth Street, in New York City, which announced that in a few months there would be opened at that location the "finest store in the world." The phrase was not very descriptive; but it aroused curiosity as to what in the world would the finest store in the world look like. It was not to be the biggest store in the world, or the cheapest, or the most popular, or the best-situated, or the most-convenient; it was to be the "finest." The word fine implied some kind of an aesthetic quality, but there were no precedents for aesthetic merit in stores. The imagination was at a loss to body forth a store that should be superlatively fine. It was found, however, when the veil was removed, that some kind of a superlative had been justified. So far as we know, if not the finest, it was assuredly the best-looking store in the world.

We have said that there were no precedents for aesthetic merit in stores, and the statement is substantially true. A store is used for the display and sale of certain goods; and the business of displaying and selling goods is not one which lends itself to effective architectural framing. The best that can ordinarily be done is to make the trim and the show-cases simple and business-like, and the details of the arrangement neat and convenient. Even when the objects displayed are valuable because of certain æsthetic qualities, such as stuffs, bronzes and the like, there does not seem to be any chance of giving a shop much architectural design; and the only instances, so far as we know, in which it has been done, are certain celebrated establishments in Europe which sell very valuable pieces of old furniture. In these establishments the furniture is arranged in an elaborate series of apartments, like the apartments of a private house, each piece having its appropriate and effective position. However, only two or three such establishments as this are in existence, and they are not widely popular. To the enormous majority of people a store which was intended to be good-looking, would be an absolute novelty.

The fact that the store in question was to be used in selling cigars would add to the novelty rather than diminish it. While the popular cigar stores may be well arranged to attract attention, they certainly are not designed to put up an agreeable appearance. Yet it is none the less true that the use to which the store was to



SHOP OF THE HAVANA TOBACCO CO.

Photo by Arthur Hewitt.

McKim, Mead & White, Architects.

St. James Building, New York City.

be put gave the architects, Messrs. McKim, Mead & White, the opportunity and cue which they have seized so effectively. It was not any kind of cigars which were to be sold in the shop. The bill-of-fare was to contain Havana cigars only; and the idea which dominates the design is consequently that of a cool, clean, sweet, spacious tropical apartment—not precisely an apartment such as one would find in Havana, but certainly such a one as might give something of the illusion of Cuba amid the brick and brownstone of New York.

The effect of the store was not only, however, to be cool and clean, like a room in a tropical house; it also had to be expensive and distinguished. The owner of the shop, the Havana Tobacco Company, was seeking the custom, not of the passer-by on Broadway, but of well-to-do people who buy cigars in large quantities and (more or less) regardless of price. It did not wish to make any glaring display of its goods, but it did wish to create the impression that the man who bought his box of cigars in the finest store in the world, was in good company. Money was lavishly spent to achieve this result. Whether it was wisely spent from the business point of view, we shall not pretend to say; but the corporation which owns the principal brands of Cuban cigars is generally supposed to possess brains, if not a soul. At any rate, the whole experiment is an interesting example of the changes in business methods which ensue from the permanent control of important industries by trusts, so-called. No business organization, except a trust, on this side of the Dead Sea, would have dared or could have afforded to spend over \$100,000 in decorating a New York shop. But a trust has not only an unprecedented amount of money to spend, but it has many ways of getting its money back, which a less opulent company does not have. Its shop in the St. James Building is, of course, as much of an advertisement as it is a salesroom, and so it must always be with any shop which seeks to be more than an enclosure for counters and clerks.

The ability to design interiors which make a very distinguished effect at a very considerable expense, belongs at least to one firm of American architects, Messrs. McKim, Mead & White; and the Havana Tobacco Company in confiding the design of the store to this firm, was well-advised. It is good economy to pay a high price for an excellent thing; and there can be no doubt about the quality of the effect which the architects have achieved. That effect is positive without being excessive; it is spectacular without being theatrical; it is above all else "swell" without being inappropriate. Of course, objection may be made to any such treatment of an apartment which is used for a very common-place business purpose, but such objections are beside the mark, because a severer

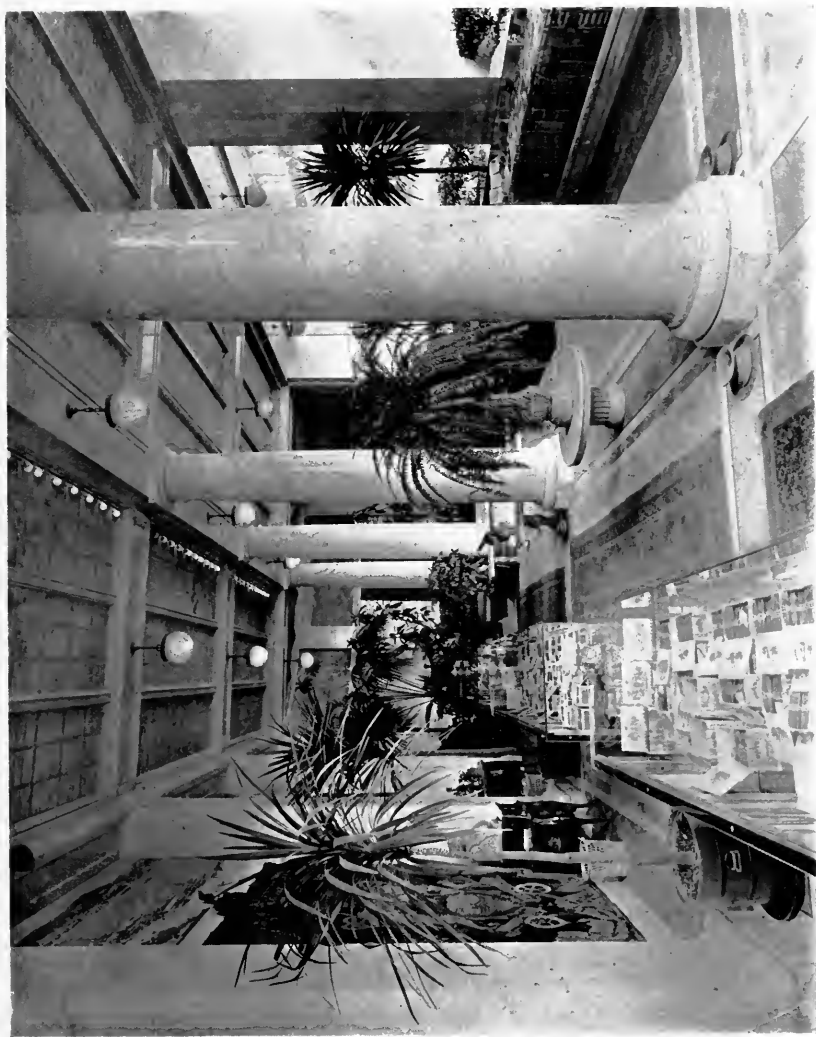


SHOP OF THE HAVANA TOBACCO CO.

St. James Building, New York City.

Photo by Arthur Hewitt.

McKim, Mead & White, Architects.



SHOP OF THE HAVANA TOBACCO CO.

Photo by Arthur Hewitt.

McKim, Mead & White, Architects.

St. James Building, New York City.



ORNAMENT IN THE SHOP
OF THE HAVANA
TOBACCO CO.

less spectacular and more structural treatment of the interior would have filled the bill. It would not have given the Havana Tobacco Company what it wanted, viz.: the "finest" show-room in the world. The store is a show-room from more points of view than one; but what a fine show it makes!

The cool, clean, rich effect to which I have referred, is, of course, obtained chiefly by the use of marble. The floors are of dull, white marble, with colored borders; the walls are lined with polished marble, and marble columns carry the marble beams on which the glass ceiling rests. The furniture of the room consists chiefly of marble tables and benches, arranged along the line of the marble columns; and the glass cigar cases have marble bases. The effect of so much white marble would, of course, be not only cool, but frigid, were it not for the ingenious measures which have been taken to impart life and warmth to the effect. Rugs of excellent color and design have been fitted into the rectangular spaces in the floor made by the borders of colored marble. A panel on the south wall is or was hung with a very beautiful piece of tapestry. Tubs, in which palms and other tropical plants are growing, have been distributed throughout the room. And most important of all, a frieze of mural paintings representing Cuban landscapes has been placed between the pilasters on two sides of the room. These landscapes, which were painted by Mr. Willard Metcalfe, are, of course, pictorial rather than, strictly speaking, decorative. Each one of them might be detached from its surroundings and placed upon an easel without losing very much of its effect. But their pictorial character affords no reason for quarreling

with them. Inasmuch as the subjects were selected for the sake of stamping the store with a Cuban character, they were bound to be painted in a representative manner, and even if representative, they are none the less highly decorative. That is, their colors harmonize with the general tone of the room, and they do more than any other single feature to impart to it a gay and cheerful aspect. The artist is to be congratulated upon the opportunity afforded to him of obtaining such a decorative effect without departing from the method and kind of work with which he is familiar, while the architects are to be congratulated upon the selection of a painter who was capable of carrying out their purpose with such complete success.

It will be seen from the foregoing description and from the accompanying photographs that the architects have used the richest materials known to decorative art in turning the store in the St. James Building into the "finest store in the world," and the completed result, although obtained by the use of familiar forms and materials, is individual and unique as well as superlatively "fine." It is, on the whole, more like a hall in a palace than it is like any other known room. It has a similar public character, while at the same time not departing from the domestic tradition in the use of materials, and it is an amusing illustration of the incongruous extremes of American life that this "palatial" shop, this tapestried emporium, this marbled and painted humidor, should occupy the same space which was formerly occupied by Dr. Munyon's displays of pictorial therapeutics.

A. C. David.



HOUSE OF MR. E. D. MORGAN.
Photo by Alman & Co.

Newport, R. I.

McKim, Mead & White, Architects.

A GROUP OF
NEWPORT HOUSES



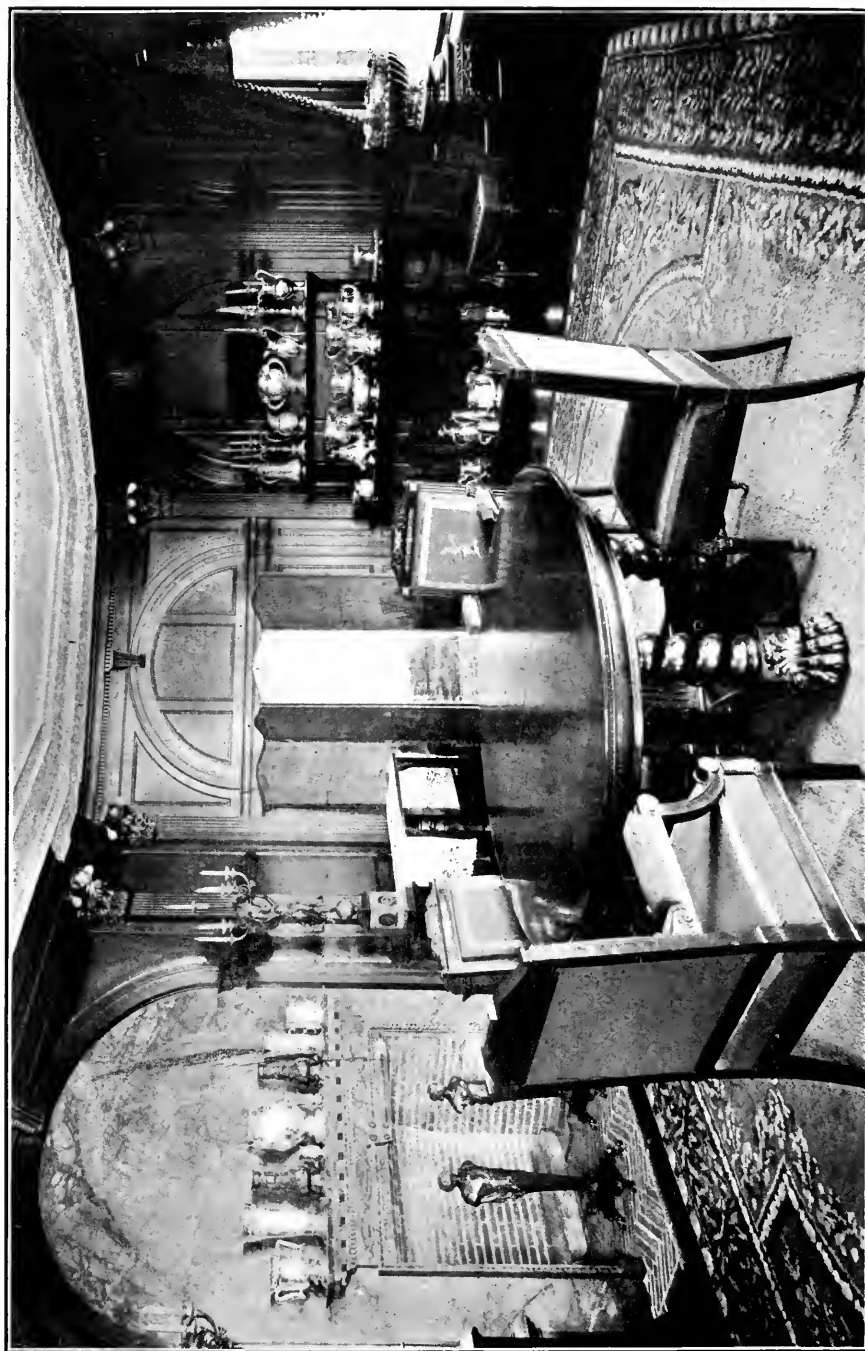
THE HOUSE OF
MR. E. D. MORGAN

THE HOUSE OF
MR. E. C. KNIGHT

THE HOUSE OF
MISS MASON

THE HOUSE OF
HERMAN OELRICHS



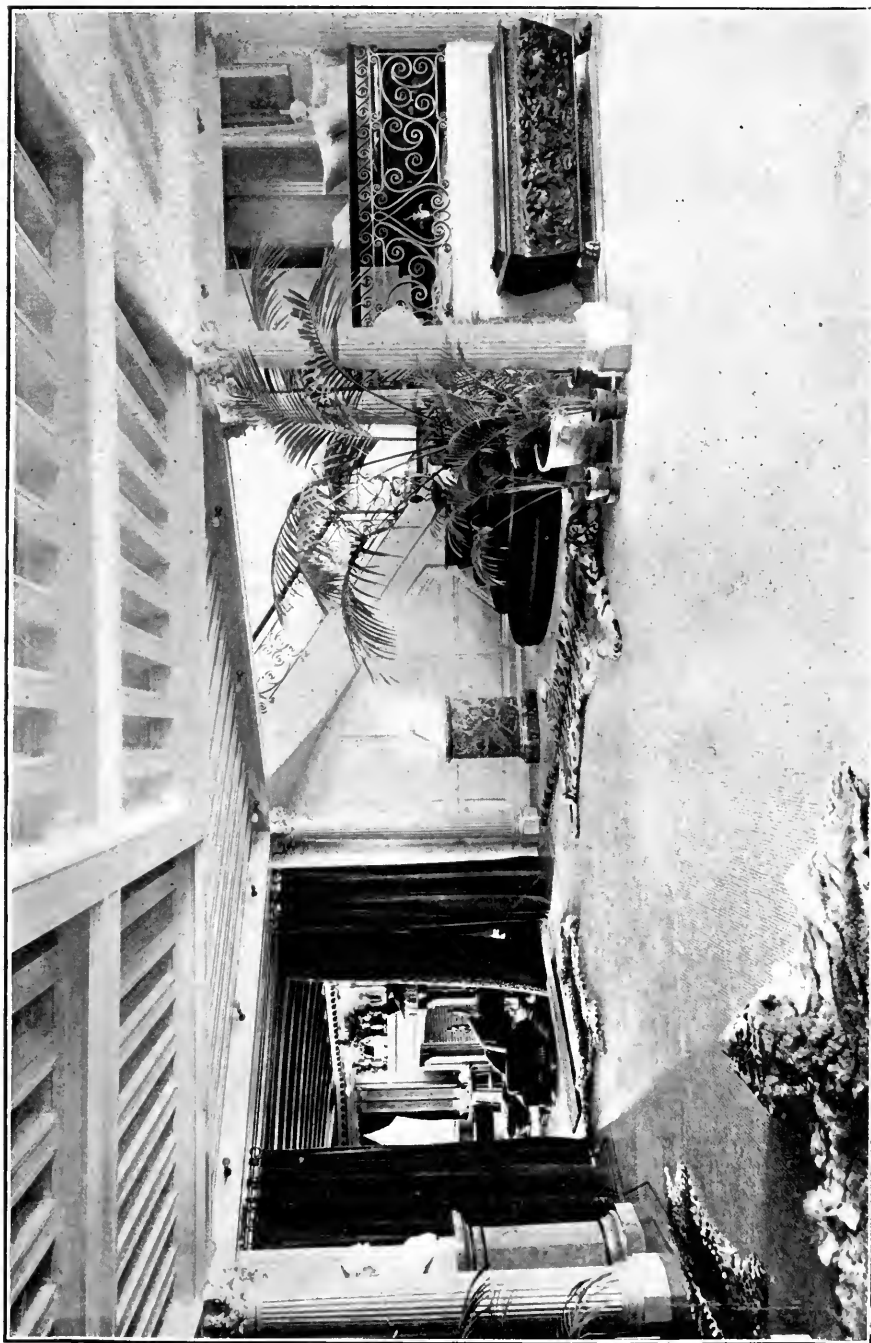


DINING-ROOM IN THE HOUSE OF MR. E. D. MORGAN.

Photo by Alman & Co.

Newport, R. I.

McKim, Mead & White, Architects.



HALL IN THE HOUSE OF MR. E. D. MORGAN.

Photo by Alman & Co.

Newport, R. I.

McKim, Mead & White, Architects.



HALL IN THE HOUSE OF MR. E. D. MORGAN.

Photo by Alman & Co.

Newport, R. I.

McKim, Mead & White, Architects.

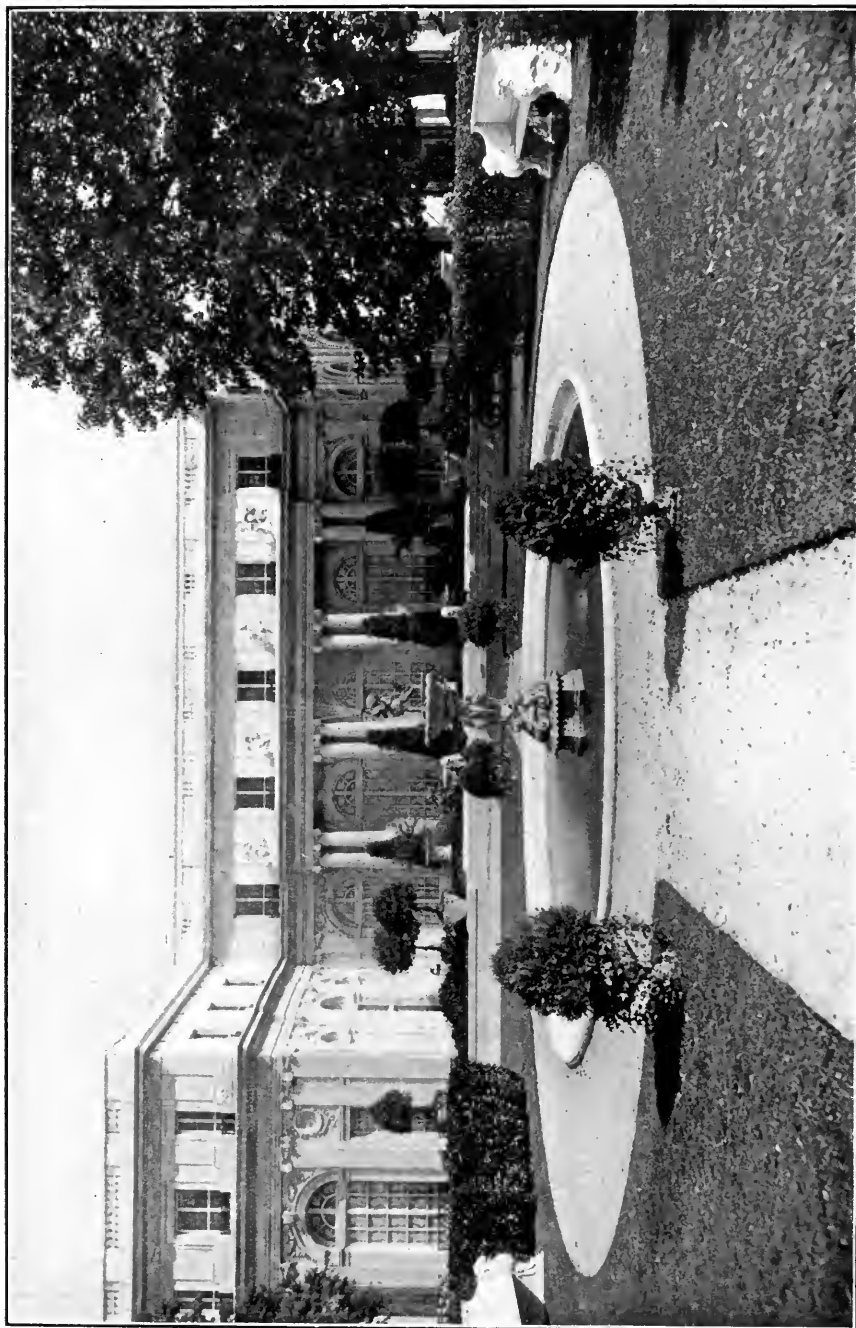


HOUSE OF MR. HERMANN OELRICHS.

Photo by Alman & Co.

Newport, R. I.

McKim, Mead & White, Architects.

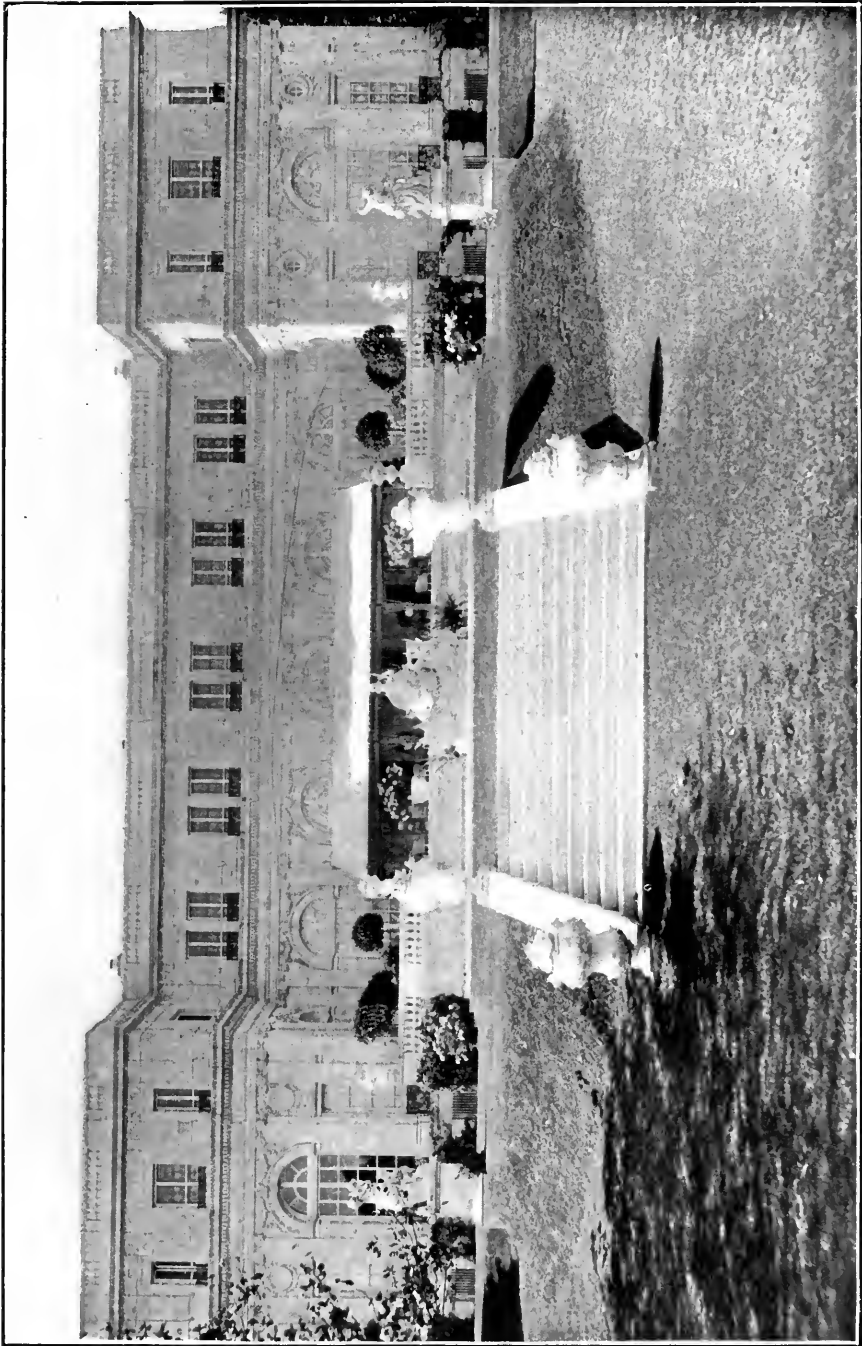


HOUSE OF MR. HERMANN OELRICHS.

Photo by Alman & Co.

Newport, R. I.

McKim, Mead & White, Architects.

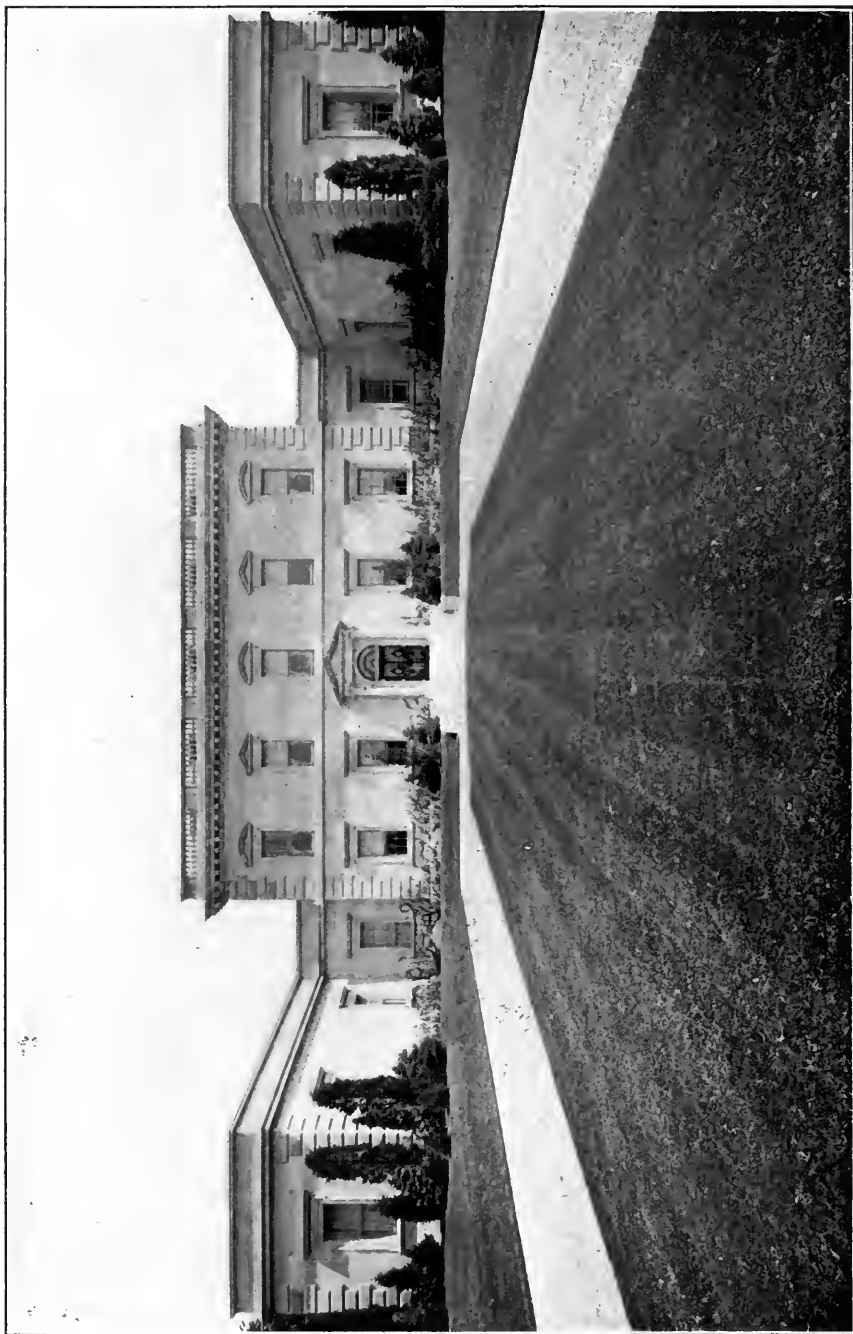


HOUSE OF MR. HERMANN OELRICHS.

Photo by Alman & Co.

Newport, R. I.

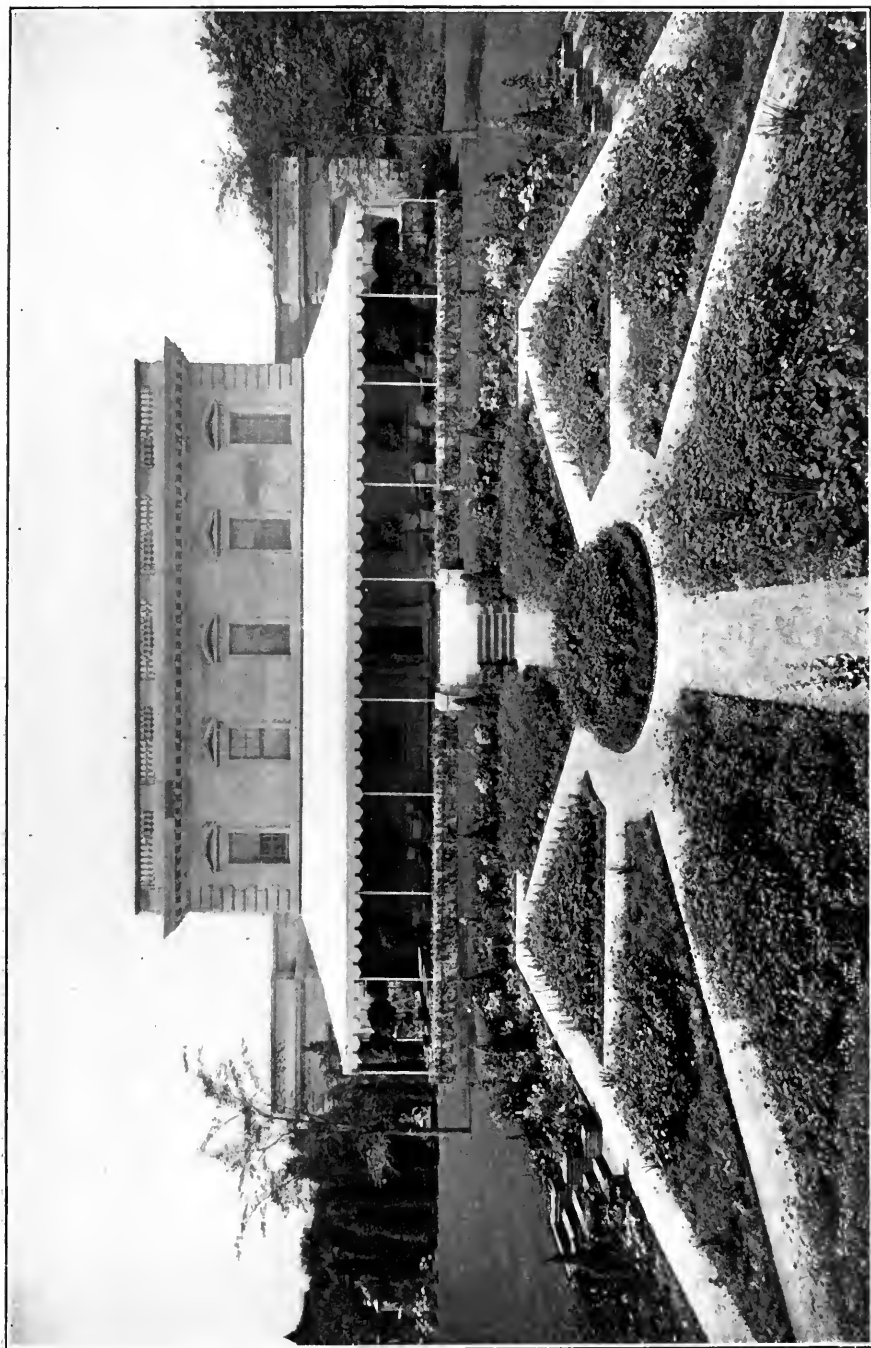
McKim, Mead & White, Architects.



HOUSE OF MR. E. C. KNIGHT.
Photo by Alman & Co.

Horace Trumbauer, Architect.

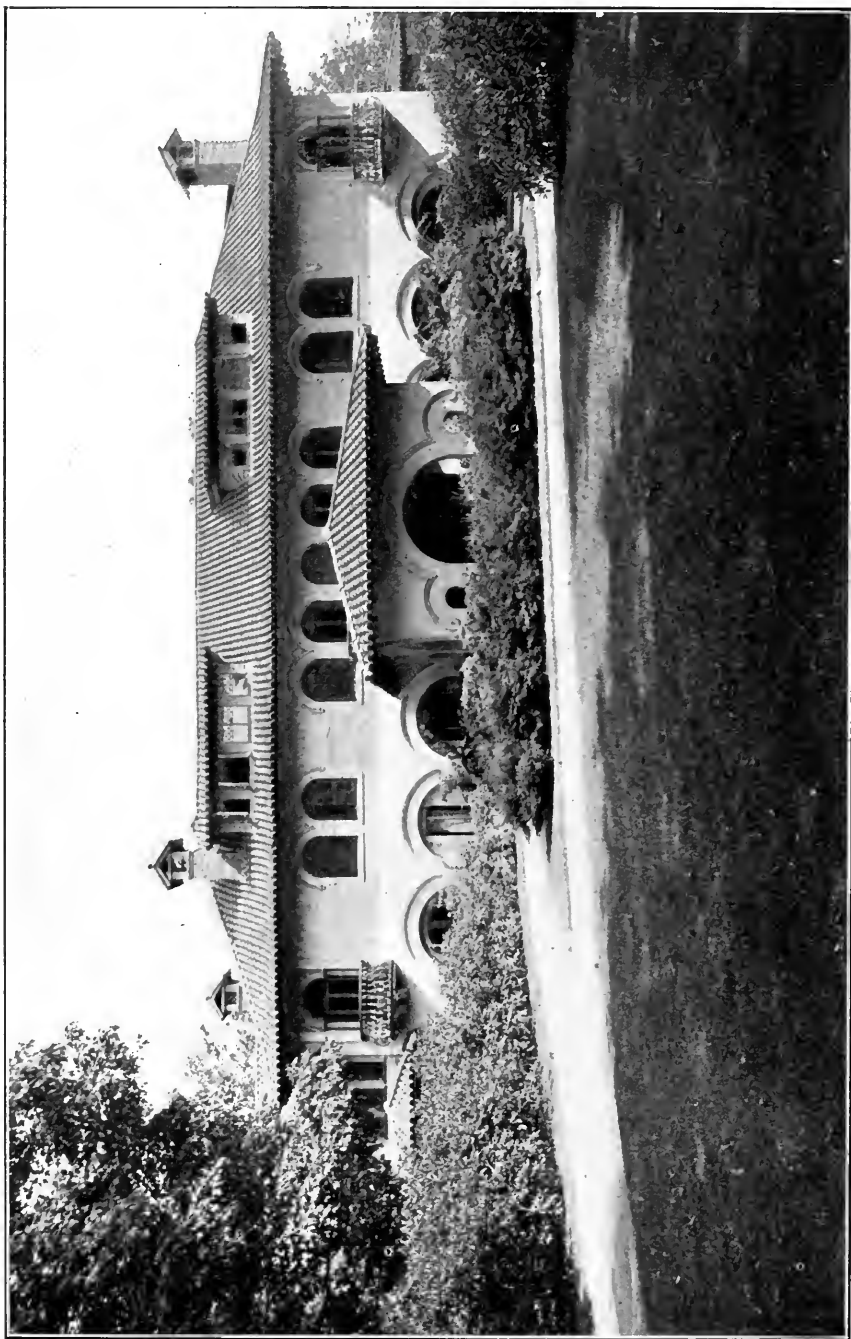
Newport, R. I.



GARDEN OF THE HOUSE OF MR. E. C. KNIGHT.
Photo by Alman & Co.

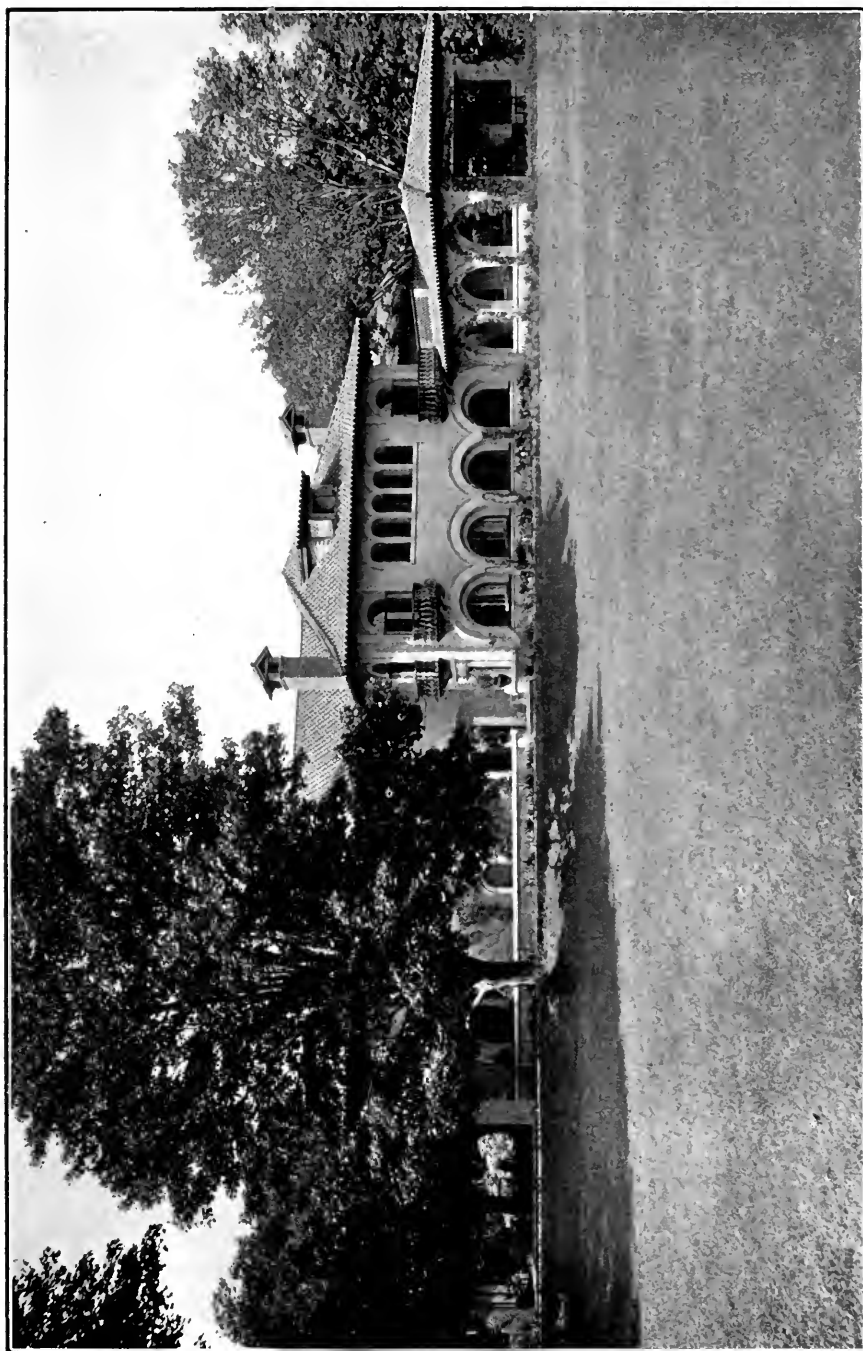
Newport, R. I.

Horace Trumbauer, Architect.



HOUSE OF MISS MASON.
Photo by Alman & Co.

Newport, R. I.



HOUSE OF MISS MASON.
Photo by Alman & Co.



HOUSE OF MR. E. E. JACKSON.

No. 424 Clinton Street, Brooklyn, N. Y.

Babb, Cook & Willard, Architects.

NOTES AND QUERIES.

A HOUSE IN BROOKLYN.

The small city house whose front we offer (page 62) is an instance of that character in design which one seeks, and for which, indeed, one cries out in accents which are considered much too piercing. Its details have been studied, each by itself and in connection with all the rest. The complete design of the façade has only been reached by the marshalling of these details so as to help one another and to subserve the purposes of the architect who has tried to make a whole design out of many parts—*e pluribus unum*. The front in question forms a part of the general design, because the house is so fortunately placed that its flanks can be seen and its whole mass studied from a little distance away and from near at hand; and it appears that the street front is part of a pavillon, as it were, which is advanced from the main mass of the house, the end wall of which main mass rises above the roof of the pavillon in a self-assertive fashion. This end wall is echoed, repeated, emphasized, by the other end wall, that which faces on the garden behind, the rear wall, as our parlance has it; and in this way the dimensions of the main house are marked and the greater size of that *corps de logis* is contrasted more sharply with the smaller size of the pavillon. And in all this, that skilled use of detail already alluded to is seen in full force even if the detail in question is but the familiar old corbie-step; for if your stepped gables repeat one another you have a stronger repetition than if these gable walls were coped with the usual sloping bars of stone or terra cotta.

In a certain dim way the half-tone print shows all the features of which there has been mention here, but it fails to explain the use of the chimney rising from that wall within which separates the front room from those behind it, and is topped out in a stack which is placed exactly on the axis of the curious little feature of cut-stone which crowns the street front.

That culmination of the front gable-wall would be thought a little too aggressive, a little too highly wrought for a mere exere-scence, were it not for this doubling of the chimney by it and the doubling of it by the chimney. Those two features proclaim the position of the main line of the roof. They insist upon the ridge, so to speak, they pro-

claim it from the front, much as a cresting of unusual elaboration might show it from the flank. Then, in order that we shall not lose this two-fold disposition of the house—this long-drawn ridge of roof which yet is subordinated in a way to the larger mass of the house—the porch of entrance is opened up completely, so that not only is the corner extension which covers the porch cut off from the rest by its inferior height, but also the fact that there is only one enclosed story in it makes of this extension a thing apart.

Then, as to details and their careful balancing, observe how the sculptural medallion with the date, which is built into the smaller false gable above the porch, repeats the note struck by the sculptured window-piece which forms the central feature of the larger gable, and how that central feature is again repeated by the ornamental cap of cut-stone at the point of the gable, the two being connected by the window between them. The cutting off of the middle pilaster by that sculptured window-piece is the only solecism or possible error that I can discover in the front, and I can understand that even this is open to discussion. Apart from that the use of the pilasters, of the two which rise from the water-table to the first step of the gable, and are then capped with a cut-stone moulded course prolonged from the step itself, is a perfect piece of architectural ingenuity employed in the right way. Ingenuity may be a mischievous thing in a delicate design, but here it is employed as it should be to give us the use of pilasters and their valuable vertical lines, in spite of the absence of that huge entablature resting upon the pilasters which a less skilled dealer in details would have found himself bound to furnish. The extremely delicate mouldings of the window-casings are contrasted in a curious way with a very rough brick wall, for not only is the front built of common brick but even the bond used in laying the brick is our old familiar New York system, the "American bond," four courses of stretchers, then one course of headers, then the stretchers again and so on, *ad infinitum*.

Yes, that is a charming design, and it confirms a lifelong impression, which is that even in these dark days a man may make a design if he will think it over and take time to think it out. That is not to deny that some men are better designers, by nature, than are some others.

R. S.



FACTORY OF THE NATIONAL BISCUIT CO.

15th Street, near 9th Avenue.

Photo by A. Patzig.

THE
FACTORY
OF THE
NATIONAL
BISCUIT CO.

The building of the National Biscuit Co. is not recognizable by any permanent or temporary signs—not even by a small plate at the office door. Let us identify it as the building with the freight elevator and its tower in the extreme foreground, thoroughly recognizable by its great gaping openings, and the iron railings which replace shutters and sash alike. The corresponding tower at the farther end of the front is used in the same way. The extremely high point of view from which the photograph is taken is so far fortunate that it shows the elaborate system of window-ventilation arranged for the uppermost story. Rotating sashes are seen not only on the front of the middle tower and in the long stretch of bulkhead behind the parapet, but also in the retreating wall, the side wall of the middle tower, though these last-named are nearly lost in darkness. The usual stove-pipe ventilators are also much in evidence. The modern business building tends to have such conveniences as these more and more common, more and more thrust into the front of observation—it will tend also toward the giving to them of an architectural treatment, though when and how is not yet visible perhaps even to the most prophetic insight.

Meantime we are face to face with that most curious problem, the treating in an architectural fashion of these wholly utilitarian buildings. Thirty years ago this present writer, at a convention of the Institute of Architects, took the ground that the only apparent way of striving hopefully for originality in ornament would be to deny ourselves every kind of ornament for ten years or so—to build absolutely without decoration of any sort. The hope was in this, that, after the ten years of prohibition had elapsed, the artists would find themselves full of a wholesome longing to mould their jambs, to carve their impostes, to break up their parapets into picturesque sky-lines, and gradually to introduce a called for, an inevitable ornamentation in place of that which they would have then forgotten to copy from photographs of old-time work. We are come very near to that situation, at least in some of the factory buildings of the twentieth century. The papers in the Architectural Record of January and February, 1904, deal with factories and

warehouses indeed, but rather with those which had more decided architectural treatment than the one we are now considering. They were admirable in their way, but their way is not quite that of the Biscuit Company's building, nor of that of one or two other structures which demand consideration as being *without* architectural treatment. That is to say, not treated architecturally as to the whole design; for the question about the scraps of technical architecture which still linger in those buildings is a very important question, as it seems.

Thus in the building which we have now to consider, let the reader study that cornice, that frieze, and that group of mouldings below, which must pass for the acroter; a whole entablature, indeed, carried around each of the freight elevator towers, around the frontispiece of the middle tower with the rotating sash, and along the whole front between, breaking in the fashion of a *ressaut* about each and every one of the structural piers of the front. Above this there is a perfectly natural parapet with nothing more markedly architectural about it than some sunken panels and a moulded front to the inevitable coping. But the entablature, even though it is made a part of the wall, even though the frieze is of plain brickwork and the moulded parts above and below that frieze are of baked clay or metal according to their position, and although there is perhaps a gutter masked by the cyma recta or what replaces it at the summit, is still an architectural termination of a wall for which the rest of the building does not prepare us, and which, indeed, has no visible or discoverable reason for being. One longs to see the designers of these realistic buildings face the situation fairly, defy traditional architecture in cases when they cannot follow its behests gracefully, naturally, easily, and in the whole structure alike.

Why, when you have a building which is to be wholly utilitarian, and which nevertheless you long to adorn in a small and innocent way without undue cost and with a continual recognition of the general business-like aspect of the thing—an aspect which is assuredly the reverse of architectural in the old-fashioned sense—why cling to those forms which are of no value whatever without their surroundings, their accessories, their ancient and recognized allies in the matter of making up a design?

R. S.



THE KENT BUILDING.

Chicago, Ill.

Pond & Pond, Architects.

Photo by Henry Fuermann.

A
CHICAGO
FACTORY.

In the Chicago building which we identify by means of the signs B. Kuppenheimer & Co. (signs which are seen reversed against the sky) there is certainly no affectation of architectural ordonnance with entablatures and all the rest of it, but there is what is fully as surprising, a reference to the very latest and clumsiest forms of the seventeenth century, *Barockstil* in the attempted architectural treatment of the entrance doorways. Why those blocks are built into the abutments and into the arch itself unless it be for the purpose of claiming relationship to a fantastical form of Neoclassic architecture it would be hard to say. The forms of pediments wrought into four of the windows of the second tier and the similar pedimental forms in the woodwork of the doorway are of the same character. The appearance of these forlorn old conventions here is disheartening enough, coming in the work of such daring and intelligent realists as are the members of the firm, Pond and Pond.

But indeed the addition of purely ornamental features to this building has not been fortunate. The diagonal squares in the parapet and those other features of the wall surface below, square frames with diagonal squares set in them and triangular pendants below these, with little square blocks between them, are altogether most uncalled for and it is indeed impossible to form a conception of what their purpose has been. That the building would have been better without them seems so obvious a truth that one would have thought even the elevation drawings certain to proclaim it.

Apart from those little accessories how straightforward, simple and dignified the building is! As a matter of opinion one might have wished away the segmental arches of the parapet, for why shirk the responsibility of carrying out the square effect of the window-openings to the very top? Why affect an arcuated construction where there is no need, namely, at a point where there is no weight upon the arches? But that is a small matter. It might even be defended on the ground of getting more light through those windows which alone among the windows of the front would have a deep reveal at their heads, and as for the rest of the work, it is certainly most inspiring in the assurance it gives us that a wholly realistic lay-out of a front of brick and glass may be effective. Dignified it can hardly be, because

it can hardly have weight enough; one cannot make a lantern dignified. Picturesque, in the usual sense, it cannot be because of its squareness and uniformity, the flatness of its roof, the general box-like appearance of the whole. It cannot appeal to the past; it is neither historical nor ethnological in its genesis, because it has grown up from a momentary need which no one could have foreseen. Just because it pretends to none of these excellences, because it is not a reflex of old and fine work, nor yet a ponderous mass impressive by its grave solidity of proportion, nor yet again a florid and richly-adorned composition of highly organized sculpture, it is the more attractive. The modern world requires such buildings as this, and this is a serious attempt to make one of them comely.

R. S.

THE
TREATMENT
OF PLAIN
FRONTS.

In the notes above there have been considered a New York building and a Chicago building, each of very restrained design. And it was suggested, in each case, that the introduction of scraps of conventional architecture, entablatures and pediments, were likely to be blots upon the design. Is there not, then, any architectural treatment which these plain fronts invite? Yes, there are several forms of it, and the suggestion which the memory of old conventions offers, first, to the student of new departures is: Mouldings. Why mouldings should be *tabu* is more than this present advocate of realistic building can explain. They are cheap; and really it does seem as if a doctrine should be preached—the doctrine of the beauty of the penumbra, its value and the facility with which one can obtain it in architecture by the simple means of moulding the jambs! Given a square window opening, a mere hole in the wall; get at it with your chisel and cut grooves, and round off a little the solids left between those grooves, and you will certainly have made an architectural work out of what is a mere piece of utility. It does seem as if the most precious of all kinds of architectural details were being neglected because so easy to procure.

In the Kuppenheimer or Kent building, of which there is consideration in the last paper, a dim sense of the beauty of mouldings is visible in the little steps, the rebates, or what you please to call them, which modify the jambs and soffits of those three archways of

entrance. There is, first, on the outer wall a little projection of, say, an inch beyond its general surface, and then a fillet of perhaps $2\frac{1}{2}$ inches in a plane parallel to that wall surface; then begins a series of two rebates as said above, four inches in and out, two inches parallel with the face of the wall; four inches in and out, and again, two inches parallel with the face of the wall; and, finally, a continuous jamb. It seems necessary to explain this, visible enough in the original photograph, because a half-tone will hardly make it clear. Now, such little breaks as those are very much better than nothing. Such little breaks have much of the charm of true mouldings, the light and shade upon them and the little shadows which they cast at certain times of the day are most attractive in their combinations. Again, in the New York building, contrast of local color is used to give offsets which frame in the freight-elevator doorways; as indeed the same contrast between the colors of flat wall and moulded projection is visible in all the drips, the sills, the lintel, the transoms. But none of these details are considered seriously as to their value as groups of mouldings, and they suggest, merely, how very much could be done at the expense of so few extra dollars, and with the saving of so many dollars used in the cutting of little inefficacious details of stone, or the shaping of them in fine clay. The true way to use mouldings, the natural, the obvious way, is to add nothing—to take away, rather; to soften off angles, to hollow out curves. That is the way in which one adorns realistically a realistic building.—R. S.

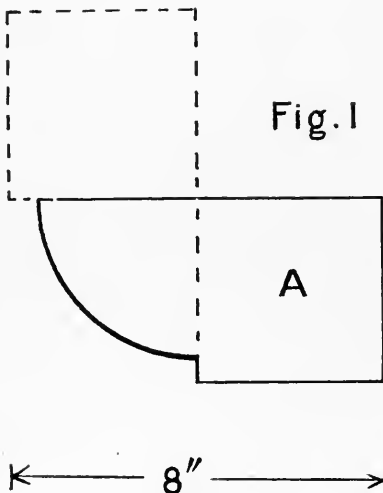


Fig. 1

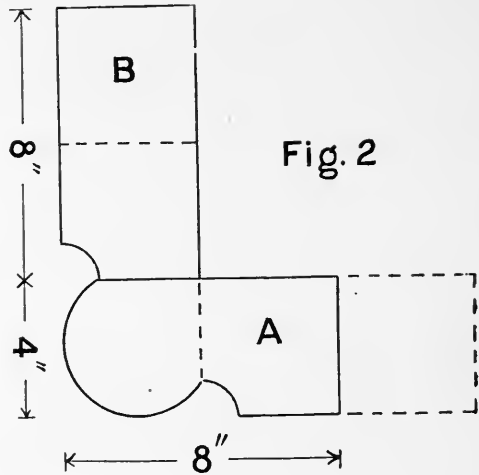


Fig. 2

SUGGESTED MOULDINGS.

Persons who speak in a somewhat down-hearted way about the prospects and the actualities of recent architectural design are often asked for suggestions as to what should be done; and that seems a fair question to ask. No critic is obliged to answer it; but one can hardly be a heartily convinced critic without having some suggestions to make. And so in the cases which have been just now before us, the need of mouldings does seem to cry itself aloud, to speak out to every designer who is not a follower of recognized styles pure and simple. There are many styles, famous and accepted styles, in which mouldings play but a small part; but assuredly the imagined architecture of the future, that which will not refer to the past except for slight suggestions, will make much of mouldings as one of the simplest devices for great delightfulness of result. In brick building they are so very easy to procure, to make up of bricks cast at almost no extra cost! In terra cotta they cost nothing. In stone they are worked with but a slight advance upon the expense of surface dressing.

Diagram No. 1 shows a very simple form of brick-moulded corner. Two patterns only needs to be cast, A and B, which are repeated in alternate long and short lay-up on either face. The diagram No. 2 shows at A the flat of a brick of about four by eight inches, and also at B the flat of another brick just as big as A, without the rounded moulding and with only the small quirk. Then in

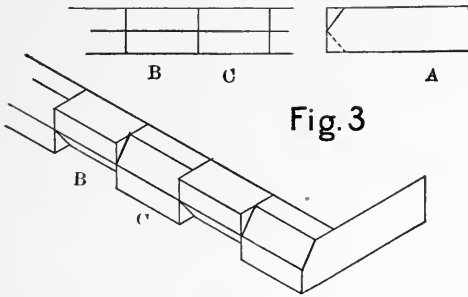
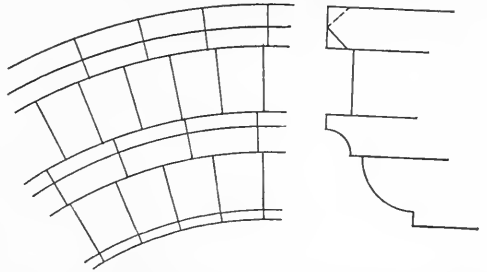


Fig. 3

continuation of A is shown the way in which the brick B will fit up against A when the two are employed in laying the first course of a corner of any sort—corner of a building, corner of a pier, corner between the wall-face and the jamb of any opening. The brick-builder knows how to lay the course above the one shown here in the diagram; that is to say, a long brick, A, will be laid to the dotted line, and the brick B will be laid upon so much of the first brick, A, as it will cover. You proceed in this way for the whole height of the vertical corner. When there is question of turning an arch above this moulded angle you proceed in a still more simple way because you simply take the long brick A and lay the first ring of a rollock arch with it in such a way that the round moulding is continuous with the vertical moulding made in the corner below. The second ring of the rollock arch may be made of common hard bricks of the usual sort. You may, if you choose, lay two of such plain rings and then put in a little hood moulding above; and about that hood moulding let us say a word. Diagram No. 3 shows the adaptation of a simple moulded brick to what is called the Venetian moulding. A shows the thin side of one of those bricks, eight inches long where it is longest, two and a half inches thick, of which thickness one half is left flat and the

Fig. 4



other half bevelled away at an angle of 45 degrees. B shows the end of a brick cast in the same form as A, with the bevelled side down, and C shows the reverse of this, the end of a brick with the bevelled side up. You put in your bricks in four-inch lengths like those, following the curve of the outermost ring of the rollock arch, and there you will have an effective little hood moulding, one which, as in marble originals at Venice, will be lovely in the strange little sharp-toothed shadows which it throws upon the wall, while even on gray days or when the sun is behind the building, the play of light upon the sloping surface is attractive enough. Of course the brick shown as moulded, in Diagrams 1, 2 and 3, may be used also in the arch, or you may build a rather elaborate archivolt of your simplest forms of cast brick, as in Diagram No. 4.

In the Kuppenheimer building there are no semicircular arches except those of the doorways. How, then, do we proceed with square-headed windows? Let us begin with

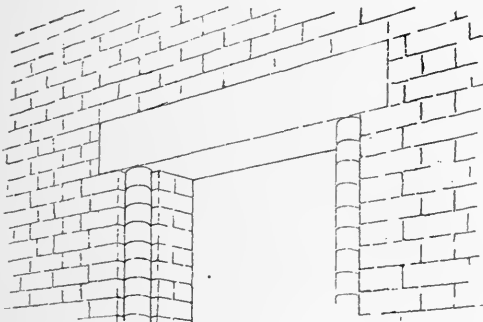


FIG. 5.

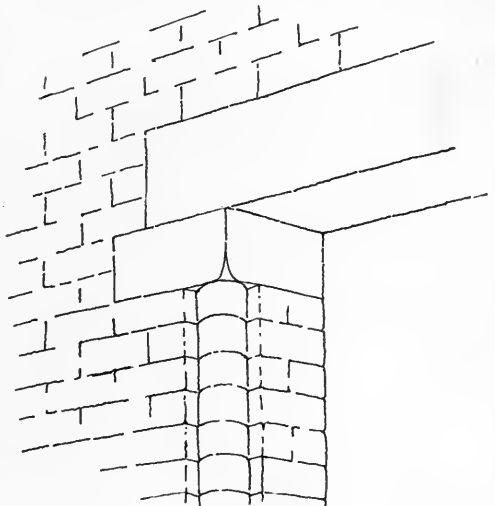


FIG. 6.

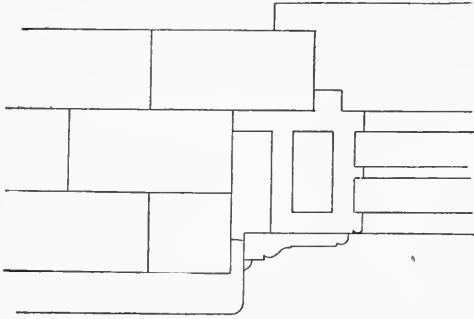


FIG. 7.

the simplest case, those windows which are square and nothing else, the plain openings in the piers which mark the corners of the building. The Venetian moulding may be carried along all three sides of that parallelogram, above the sill, and will look well there; or the same moulding that we have in Diagram 1, or that in Diagram 2, carried up the jambs, may stop directly against the under side of a lintel of stone or terra cotta or whatever material you will, as shown in Diagram 5. Or else a stop-block can be cast in brick for the purpose, as shown in Diagram 6; but, indeed, to the present writer there is nothing in the least degree repellant in the simpler conditions of Diagram 5.

We shall be told, however, that this involves a reveal eight inches deep, and that that takes away valuable space from the interior; and that only four inches can be given, of which four inches a part is to be covered by a wooden moulding. Now, no doubt there are conditions under which architectural effects cannot be had. If you cannot have any reveal to your window a great chance of decorative treatment is lost, unquestionably. But you will remember that building with a four-inch reveal and (as must be, very often) a four-inch rebate for

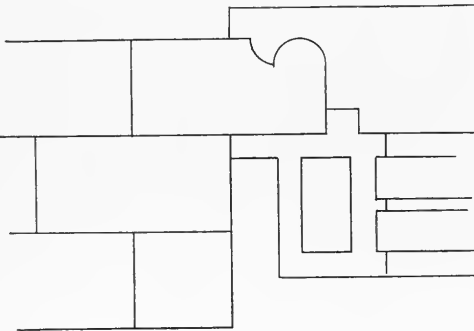


FIG. 8.

the window-box is very bad building. We don't always realize this, but a glance at Fig. 7 shows how feeble that necessarily unbonded flange of single bricks must be.

If needs must, then, this at least may be done with your four inches of reveal. Have a brick cast, the flat of which shall be like A in Diagram No. 8; or a richer one, as you please—no limit of choice is to be considered here. A four-inch reveal may be laid up as an arch is laid up, without bonding; it will last as long as the common square corner, and will be pretty enough.

Figure 9, then, shows how, according to this scheme the horizontal section of the brick corners in the Kuppenheimer Building might be managed. At A is the four-inch reveal of one of the windows in the corner pier, and at B an eight or twelve-inch reveal for the continuous upright, like one of those which frame in the triple windows of the chief part of the front. If the bonding of the

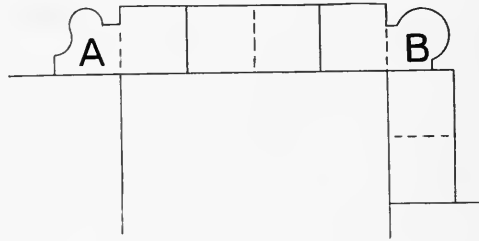


FIG. 9.

work and the breaking of the joints throughout be not maintained the variety of mouldings at your disposal is unlimited; you may employ ogees and what not besides; but even with the alternation of the bricks in their succeeding courses a considerable variety is obtainable, and there is this comforting truth to call to mind when a few moulded bricks only are needed; first-rate masons have been known to say that it is less trouble to cut with stone-cutter's tools a thousand or two thousand bricks than to have them cast, and to proceed accordingly in despite of signed specifications.

R. S.

BEAUX- ARTS TRAINING.

A well-known architect was asked recently whether in the employment of draughtsmen he found any reason for discriminating in favor of men who were trained in any particular school. The answer was that, so far as the American schools were concerned he had no preferences, but that he

found difficulty in having his work properly done by draughtsmen who had been trained in Paris. "The Beaux-Arts graduate," he said, "is on the average a better draughtsman than the product of the American school. He is better trained in the sense that he can make a better drawing. But in spite of their skillful drawing I find that I can rarely trust them to work up properly an idea, which is given to them. They are competent, but they are not flexible. The mark of the school is written all over their work. One particular fault is their preference, amounting almost to an ingrained habit, for the use of big bunches of hybrid ornament. They must, of course, be acquainted with the simpler classical forms; but they have not been trained to use them, and when left to themselves their drawings break out into an eruption of mixed decorative detail, which smothers the simplicity of the original idea. The great difficulty is, however, that they are too frequently only architects on paper. They know how to make admirable drawings; but they have little or no knowledge of these sources of architectural effect, which cannot be made very explicit on a draughting-board. While this may be due partly to the fact that when they reach my office, they are mostly inexperienced and fresh from school, there certainly seems to be some defect in a method of training, which cultivates the student's draughtsmanship more than his knowledge of the realities of architectural design." The foregoing is, of course, the experience of only one architect; and it is set down for what it is worth. Probably the trouble with many of this architect's draughtsmen was that they had spent only a year or two at the Beaux-Arts, and had learned how to draw without supplementing that knowledge by the work upon actual buildings which is required later in the course.

CUSTOM
HOUSE
SCULPTURE.

We reproduce herewith four spirited figures which are destined for a position on the façade of the new custom-house as soon as that slow-growing structure is complete enough to receive them. Two of these figures are by F. M. L. Tonetti, while the other two are by Louis St. Gaudens, the talented brother of Augustus St. Gaudens. These figures represent four of the great maritime powers of history, Spain, Venice, Holland and Portugal. Spain is figured as Queen Isabella, with a caravel

on her shield and the cross on her crown. Venice is represented in the person of one of her Doges. In his left hand is the ring, with which Venice is wedded to the Adriatic, while his right arm rests upon a column carrying the lion of St. Marks. The maritime hero of Portugal is naturally Prince Henry the Navigator, to whom the modern world owes so much, and whose martial and zealous character receives a strong embodiment under Mr. St. Gaudens' hands. Finally, Holland has a gallant spokesman in Admiral Van Tromp, who swept the channel clear of English ships and who appears in this latest representation more like cavalier than Calvinist. But as so many of the paintings of the 17th century show, a Dutchman of that time might well be both cavalier and Calvinist. In order to understand these figures, it must be explained that they are twelve feet high, and are to be situated on the top of the colonnade, no less than one hundred feet above the level of the street. In such a position as this details do not count very much, and the sculptors have been obliged to treat their figures with an emphasis, which would be excessive in figures that are to be seen from comparatively short distances. Their effect is gained chiefly by a definite and comprehensible silhouette, by the distribution of light and shade and by the color qualities of the surfaces. A minute examination of these figures will show how carefully these sources of effect have been studied; but any consideration of the success which has been obtained must be reserved until, in the fullness of time, they are actually standing upon their proud pedestal.

THE
AMERICAN
CIVIC
ASSOCIATION.

The American Civic Association, organized last June, has issued its second bulletin. This is an interesting catalogue of the improvement literature published by the constituent societies: The American Park and Outdoor Art Association and the American League for Civic Improvement, prior to their merger in the new association. In the list of one hundred and eleven papers, included in twenty-two pamphlets, there are only two titles that suggest a reference to architecture. Nearly all the others relate to the treatment of public and private grounds, and from the multiplicity of these titles, touching all phases of the subject, it would seem that the best work that the Civic Association can now do will be the collection,



MODEL OF THE FIGURE OF VENICE.

To be placed on the New York Custom House.

F. L. M. Tonetti, Sculptor.



MODEL OF THE FIGURE OF SPAIN.

To be placed on the New York Custom House.

F. L. M. Tonetti, Sculptor



MODEL OF THE FIGURE OF PORTUGAL—PRINCE HENRY, THE NAVIGATOR.

To be placed on the New York Custom House.

Louis St. Gaudens, Sculptor.



MODEL OF THE FIGURE OF HOLLAND, THE ADMIRAL VAN TROMP.
To be placed on the New York Custom House. Louis St. Gaudens, Sculptor.

perpetuation and dissemination of the better of these papers; and then the reserving of its energy for the comparatively neglected side of improvement work—the architectural—and for giving practical assistance to real workers, instead of continuing to publish papers in a field already sufficiently well covered, even by itself. It is to be regretted that this second bulletin has not been more carefully prepared. Some of the titles are obviously given inaccurately, and the grouping is so slipshod that of fourteen titles under the head of “Children” only four refer to them or are concerned in any way with them. But the Civic Association will probably improve as it goes along. It has an inspiring opportunity, if it conscientiously and with a single mind avails itself thereof; and when a new secretary is selected, to take the place of Charles Mulford Robinson, whose resignation became effective in September, more care than is now evident may be expected in the preparation of its material. The American Civic Association, having been formed by a union of the only two national organizations engaged in improvement work, has something more than an opportunity. It has an immense obligation to this movement, for it may put back—if, indeed, it may not wreck—the whole development unless its executive officers are ready to efface themselves in something like consecration to the cause. It is no secret that Mr. Robinson continued in the office of secretary long after he could afford to do so, and when he did retire, the union having been accomplished and the society having been given the strength of an extremely large membership, the association was in a condition that makes it difficult to excuse false steps even in an *inter regnum*, and that ought to render continued progress easy. The events of the next few months will be watched with exceeding interest, but with great hope.

**MUNICIPAL
IMPROVE-
MENT IN
ST. LOUIS.**

The report to the Mayor of St. Louis by the Public Buildings Commission—which is composed of John Lawrence Maura, William S. Eames, and Albert B. Groves—has been handsomely printed in pamphlet form, with plans and illustrations. The commission explain that in devising the comprehensive schemes for the city's official construction, they do not expect that the whole project will be undertaken by one administration; but they advocate only such placing of the buildings that are now most

urgently required as to “start a plan so obviously advantageous that in years to come succeeding administrations will recognize the desirability of adding to and finally completing the project.” The structures immediately needed are a modern jail and a group of buildings to house the police and fire department headquarters, the dispensary and detention rooms, etc., and all the courts now using the Four Courts and the old Court House Building. Two plans have been drawn up, each of them forming a civic center of which the present City Hall would be a feature. Plan No. 1, which is rather the more obvious, places these buildings on Twelfth Street, facing the City Hall, and would involve an immediate expenditure of \$2,970,350. Plan No. 2, which would create a magnificent parkway in front of the City Hall, involves the acquirement of all the land between Thirteenth and Fifteenth Streets, from Chestnut Street to Clark Avenue; and yet after deducting—as was done in Plan No. 1—credits from the sale of vacated city property, there would be necessitated an expenditure of slightly less than \$2,725,000. The latter plan provides a larger amount of property for future development; while its Parkway would furnish a vista from the new Public Library to the Municipal Group, and would create something very like a City Hall Park. Both plans include locations for important monuments and fountains, and promise a very imposing effect.

**CIVIC
DAY AT
ST. LOUIS.**

That a necessity still exists for going carefully and slowly in civic improvement matters, in spite of the recent enormous growth of the movement, is well illustrated by the comparative success of the Civic Day, celebrated in mid-October at St. Louis. As originally planned, there was to be a Civic “Week” in mid-June, when members of the various national bodies engaged in efforts for civic betterment were to confer. But falling through from lack of adequate attendance, there was a four months’ postponement and the programme was cut down to a single day. The new date was chosen with reference to the always well-attended convention of the League of American Municipalities, and Civic Day found an audience, an interesting list of papers and speakers, and a representation from the various bodies whom it had been sought to interest—all this without change of personnel in

the management, John A. Butler, of Milwaukee, continuing as the efficient chairman, and in spite of the handicap of a record of failure in June. The national societies represented officially at the Civic Day Conference were: The League of American Municipalities, the American Society of Municipal Improvement, the National Municipal League, and the lately formed American Civic Association. Officials of these societies outlined in papers, that made a series striking and significant, the aims and accomplishments of their various organizations. There was also a series of papers dealing with the civic problem from the sociological, political, legal, religious, improvement, and administrative points of view, and there was shown, not as a surprising, but as a most significant, feature of the meeting a mutual good will that spoke well for the genuineness and earnestness of the wish of the officials of these societies to better municipal conditions and that promised well for their ultimate co-operation. By another year or two it should be possible to hold successfully a Civic "Week" conference.

MR.
BURNHAM
IN
MANILA.

Early this month Daniel H. Burnham, having spent *en route* a month in Japan, is expected to reach Manila. It can be no unkind or unwise betrayal of confidence to state that, although he goes at the request of Secretary Taft, and for the purpose of making a plan for the splendid reconstruction of the city, he stipulated that he should be paid no salary. This is a noble sort of patriotism that can be belittled neither by any theory of emotional excitement nor by any cool calculation of resulting benefit. The case is one in which the office sought the man. Secretary Taft dreamed of a new Manila, nobly built, when he was still Governor of the Philippines, and it is said that when the expert commission on the improvement of the City of Washington—of which Mr. Burnham is a member—went to Europe to get ideas, he asked that it be allowed to return by way of the Philippines, so that it might give suggestions for the rebuilding of Manila. The request was not granted; but when Governor Taft himself became Secretary of War, he lost no time in consulting Mr. Burnham. This trip results. There are certain government buildings that must in any case be erected at Manila, and the idea is to seize the opportunity offered by their erection for devising a scheme of general improvement. Before sailing, Mr. Burn-

ham spent a little time in San Francisco, where also he is at work on an improvement plan, having been commissioned thereto by the association for the improvement and adornment of that city.

IN
ENGLISH
HOMES.

Charles Latham, of London, is known to many persons who wish to secure photographs of buildings other than those distant views of cathedrals which every traveller buys. His establishment has been known for twenty-five years at least as producing good work in the way of special negatives. And now a large book, a folio with several hundred illustrations, has been made up from the pages of *Country Life*, a London monthly, and with the statement on the title-page that these half-tone prints have been produced "from photographs specially taken by Charles Latham." To this folio the obvious name has been given, "In English Homes," and yet it is not the home quality which predominates in these books of splendid country mansions, the homes—if they are homes—of those who make up what Mr. Hamerton calls the "most spending class" in Europe.

The very first words of the introduction deal with that noble book, Nash's "Mansions of England in the Olden Time," and those folios, first printed in the years between 1839 and 1849, have served at once as a suggestion for the arrangement of the present book and as a standard to follow, and if possible, surpass. Nash dealt with the really noble interiors of the Tudor, Elizabethan and Jacobean mansions, giving much less attention to their outsides, and Nash's plates, drawn with a certain dash and *verve* very difficult to describe, were of that character as drawings which makes the most of the subject treated. Joseph Nash could handle architectural detail, and he drew the figure with reasonable accuracy and with great dexterity and readiness, putting a picturesque quality into the armor and costume, the pose and bearing, of his *boushommes*, little figures which gave to the architectural drawings an added appearance of reality. The remark of Mr. O'Donoghue in a biographical notice of Nash, to the effect that he gave little attention to constructional character, is accurate enough. Nash was not, perhaps, skilled in building or in the necessary conditions of building; he was a water-color artist and lithographer,

with an eye for the characteristics of architecture as of humanity.

It is easy to see, then, the ways in which the new folio might surpass the old one. We have the photographer to replace the draughtsman, and so far it is well. On the other hand, we may easily see wherein the old books are still delightful to possess, and why no one need sell them in a hurry, if he owns them, with the thought that the present folio takes their place. For consider the inferior comeliness of the half-tone prints when compared with the fairly well printed lithographs! There are, indeed, prints in the new English book which leave little to be desired. Thus, in the very introduction, if we open at pages XXX and XXXI we shall find a full-page and a half-page view; a view in the great hall of Ragley Hall, Warwickshire, and a view of the old parlor at Birtsmorton Court, Gloucestershire. Each picture shows nearly the whole of one side of the room in question, and if the one print is much larger than the other that is mainly because it is a huge apartment, over thirty feet high in the middle, while the other is a low-ceiled sitting-room of the well-known seventeenth century type. This is as much as to say that the views are nearly on the same scale; a foreground chair in one corresponding closely in size to one in the other view. This, of course, is a signal merit, and, although it is not asserted that the same unity of scale is carried through the book, it will yet be found that an approximation to it has been secured, and that it will prove on examination to be a great virtue. The two prints that we have named are also valuable because they are in pale gray tones without all-swallowing black shadows. Herein it is evident that they are peculiar. No one needs to be told that this could not be said of the whole series of prints. Some of them are bound to be as black and gloomy, as ugly on the page as it is the manner of half-tones to be on occasion. But there are many of the good kind. The views in Hatfield House, that magnificent Elizabethan mansion which belongs to the Marquis of Salisbury, are of both kinds—the pale and delicate, and the violently black. There are a great many of them, sixteen in all, of which two only are exterior effects, and in this way a really splendid series of the studies of interiors are furnished—interiors the richest and most picturesque that can be imagined, and all shown as of rooms in daily use. The book is published at the offices of *Country Life*, London, and imported by Charles Scribner's Sons, New York: 1904.

R. S.

BRITISH HOME OF TO-DAY.

The folio volume named above, as published by *Country Life*, deals with the buildings of the sixteenth and seventeenth centuries for the most part. And now we have to mention briefly a very inexpensive book (price five shillings) "The British Home of To-day." This book, published in London by Hodder & Stoughton, is large in page and abundant in contents, to such an extent that the low price can be wholly explained only on the supposition that the material was largely without cost to the publisher. Its page is nearly 8½ inches wide by 11½ high, and it is crowded with illustrations, some of which are in color. It is made up entirely of separate papers, for the authorship of which excellent and even famous contributors have been secured: R. Norman Shaw for "The Home and Its Dwelling Rooms;" Frank Brangwyn for "The Home and Its Bed Rooms;" and seven other men only less well known. The plates also are the contributions, very often, of men of light and leading. The fact that an advertisement supplement invades the volume in such way that it is hard to be sure just where mercantile interest begins to talk and artistic criticism ceases can only be lamented. The tendency of the time is in that direction and there is apparently no escape from it. The cost of the book, which sells at such a low price, must be largely borne by the advertiser.

The interest that our readers will take in the book if they will examine it, will be in the comparing of the English plans with those with which they are familiar in the United States. Accessories are everywhere, which denote the employment of many domestics and of an old-fashioned handwork way of doing the business of the house. The separate rooms on the kitchen court which are lettered Dairy, Larder, Scullery, Coals, Boots, Footman, Valet, Brushing, form a feature which one does not find reproduced in American country houses.

As for the rooms of the house itself, the complete shutting off of one sitting-room from another, so that to go from the morning-room to the dining-room and thence to the drawing-room you must twice pass through the hall and the passage which leads from the vestibule to the house, although the drawing-room and the dining-room have only a wall to separate them, is again something which American plans will not often show. The mistress of this house, if an American lady, would wish a door cut through from

dining-room to drawing-room, and that forthwith. And as for the morning-room, she would try to get that into touch with the other two rooms mentioned, and would alter without hesitation to do it—unless, indeed, “morning-room” is another phrase for the master’s work-room or study or “den.”

There is no system of pagination, so we must leave our readers to find their own way through the book; but in the latter part of Signature A there will be found a house by Ernest Newcomb in which the vestibule of entrance has a stair upon your right as you enter, and a large hall, fairly square, on your left, from which hall open morning-room, drawing-room and dining-room, while morning-room and drawing-room at least have a huge doorway to connect them *en suite*. That is more in the American way. The other—that which we have called the characteristic English plan—is seen in a plan by the same architect on the same page; for here the drawing-room occupies the extreme southeasterly corner, the billiard-room the extreme southwesterly corner, and the dining-room the extreme northeasterly corner of the house, or at least of the main building, exclusive of the servants’ wing.

I do not think that there is much inspiration to be drawn from these pictures of the exteriors. None of them seem to be capable

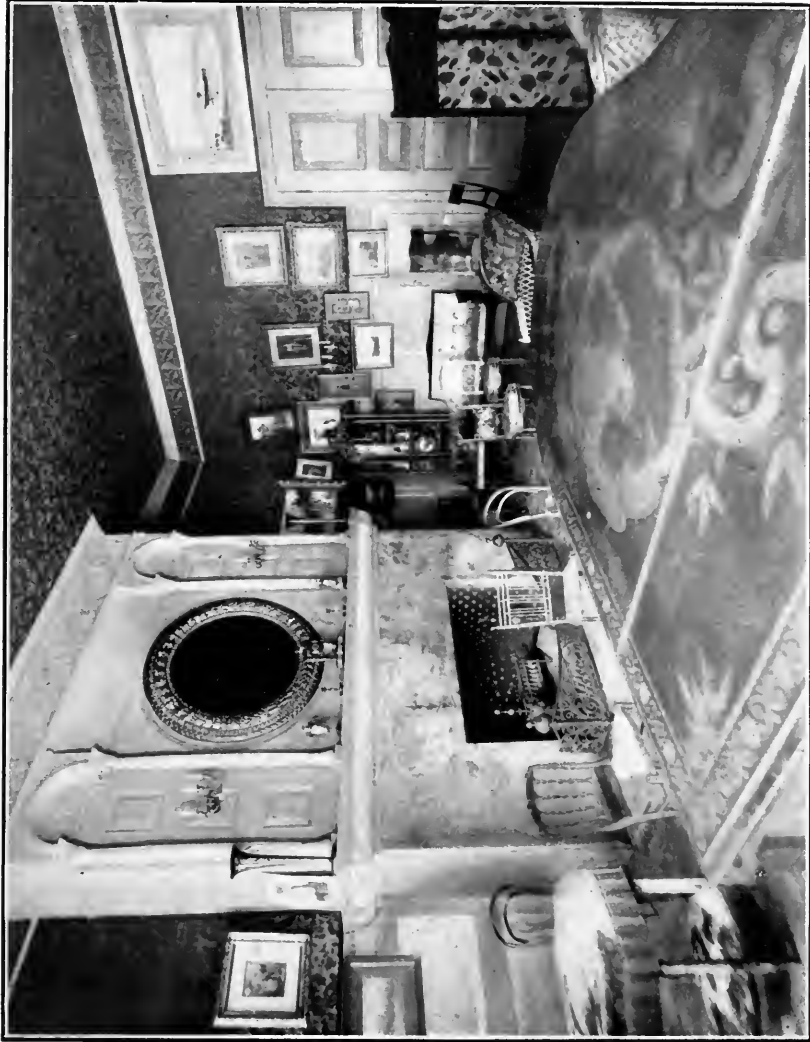
of seizing the attention. They are quiet and comely enough and they have that characteristic of English buildings of no great pretension that they seem to be at home with their surroundings, and that they will probably look in a year as if they had been there always. Now that is very high praise—I feel it to be so—and yet it is in a way as if it were given to the whole British community taken together, to them and to their architects alike, and, as the American cannot “hineinstudiren” himself into English ways of thinking by any effort, he will never succeed in designing in the English way unless he resorts to simple copying—and simple copying is not what is recommended just now. As for the suggestion, as for the stimulus, as for a strong pull-up to the American who feels almost in despair that there is nothing given to the architect of his country to say—for him there is perhaps no great comfort in the book before us. These remarks apply to the illustrations rather than to the text; but as for the text, buyers of this book must be prepared to face that curious insularity of criticism which accepts as real, fine and important, things which the rest of the world knows to be local, temporary, and not for the student to absorb into himself. Think of repeated praise of William Morris, as if he were a great designer!

R. S.





HALL IN THE HOUSE OF MR. JOHN HAY, SECRETARY OF STATE.
Washington, D. C.
Photo by Waldon Fawcett.



DRAWING-ROOM IN THE HOUSE OF MR. JOHN HAY, SECRETARY OF STATE.

Photo by Waldon Fawcett.

Washington, D. C.



DINING-ROOM IN THE HOUSE OF MR. JOHN HAY, SECRETARY OF STATE.
Washington, D. C.
Photo by Waldon Fawcett.

INTERIOR FIREPROOFING.*

[The following is the third of a series of Technical-Industrial Reports upon a certain System of Fireproofing, made to the Manufacturers by the well-known expert on Building Construction, Mr. William J. Fryer.]

Combined Materials

In combining materials to make a homogeneous one that will equal stone, clay and other natural products, and be worthy of the name of fireproof and have the requisite strength, and be durable and lasting under all conditions, many requirements have to be met; and if any such combination fails in any respect to meet these demands it would be worse than useless to use the product in the construction of a building intended to be permanent.

Artificial Stone

So many times has artificial stone proved false to expectations and promises that few architects will dare to use it in or about an important structure. And so of a great variety of articles that seemed to offer great advantages only to prove disappointing in practical application. Some years ago a mixture, the chief component parts of which were sand and cement, was introduced to the public as a desirable and cheap substitute for ornamental terra cotta. Tested by extreme heat, by extreme cold, by strong brine, by water, by these singly or together, the artificial terra-cotta withstood them all. A sample block, however, was placed on the roof of a building and left there undisturbed for several months during a winter's season. In the spring the sample was found in a shapeless mass. In another case, samples of an artificial stone were scientifically tested and stood the tests in a highly creditable manner. Unfortunately the simple test of prolonged outdoor exposure was not thought of or not resorted

to. One of the men who became interested in the invention, he being a mason builder and possessed of large means, was so well pleased with the results of the tests that he used this artificial stone for the trimmings and quoin blocks of a large brick warehouse that he built for his individual investment on St. Nicholas avenue, in New York. In less than a year's time thereafter the owner was looking for stone preservatives in the hope that he could check and further prevent the scaling off and disintegration of his artificial stone. There is something in the atmosphere and the workings of nature that seems to wreak destruction to most of the artificial mixtures more surely than man's ordinary tests by high and low temperatures in determining the non-conducting and fireproof qualities and durability of materials. Therefore the verdict of nature must be sought, and until favorably pronounced no mixture intended to take the place of long proven materials used in construction is entitled to absolute reliance.

Nature's Approval

Nature has put its stamp of approval on stone and on brick or burnt clay as building materials, but when those materials are improperly used natural laws entail punishment for transgressions. Stone stood on edge and not laid on its natural bed; brick so laid in walls as to leave innumerable air spaces within the wall; clay pressed into shapes to form hollow spaces within and then burned; concrete of improper mixtures and full of voids—these are not what have been proven by time and experience to withstand the rigors and changes of climate and the heat of conflagrations.

*For previous articles see November and December numbers.

**Room and
Demand for
a New
Material**

There is room for, and there is a necessity for, a new, strong and durable material that will be solid and lighter than concrete or burned clay; that will withstand fire and water or both combined; be impervious to water and be water-tight when in place for fillings between iron floor beams; suitable for partitions, elevator inclosures, column coverings, floor surfaces, and stair treads; be a non-conductor of heat; be not affected by temperature from the outside or the inside of the building; be capable of being pressed into any desired shape for trim, doors, window frames and sash; be susceptible of receiving a smooth, exterior finish of any desired color; and lastly, but very important, the cost must not be excessive, and compare favorably with the cost of other approved systems. The field for the use of such a material is well nigh limitless.

**Shutters
and Doors**

Fireproof shutters and doors of such a material as will stand fire without warping, shrinking or cracking, and be a fire stop and not merely a fire retarder, would be welcomed as an addition to the building arts. The old-time iron shutters and doors, although still largely used, have long

been out of favor with those who have knowledge of their defects. Their warping by fire, their wriggling away from their fastenings when struck by heated air and flying open at the very moment when the purposes that they were intended to serve demanded that they should be shut, justly secured a greater liking for solid wood covered on both sides and edges with tin or tight fitting metal, as such would not warp or twist and equally as well withstand flame. Reasons have been previously given why metal-covered wood shutters are not durable, in that the tightly covered wood soon becomes dozed or mere punk within a metal casing, particularly when such shutters or doors are exposed to the weather or where there is dampness. Is it too great a stretch of the imagination to believe that the preference given to metal-covered wood shutters and doors over iron ones will in turn be given to shutters and doors made of a material such as has been described as ideal for this purpose? And if this be true of shutters and doors, why not for other purposes? Concededly it depends upon the material being all that is set forth that an ideal material should be.

Such a material has been produced, been subjected to every kind of test, and proven by actual use—the latter the most practical of all tests—in places where conditions greatly differ. Of this material subsequent articles will fully treat.

"HECLA FIREPROOFING"—PATENTED.
The System of Real Fireproofing.

The Hecla Iron Works,

Brooklyn, N. Y.

THE ARCHITECTURAL RECORD

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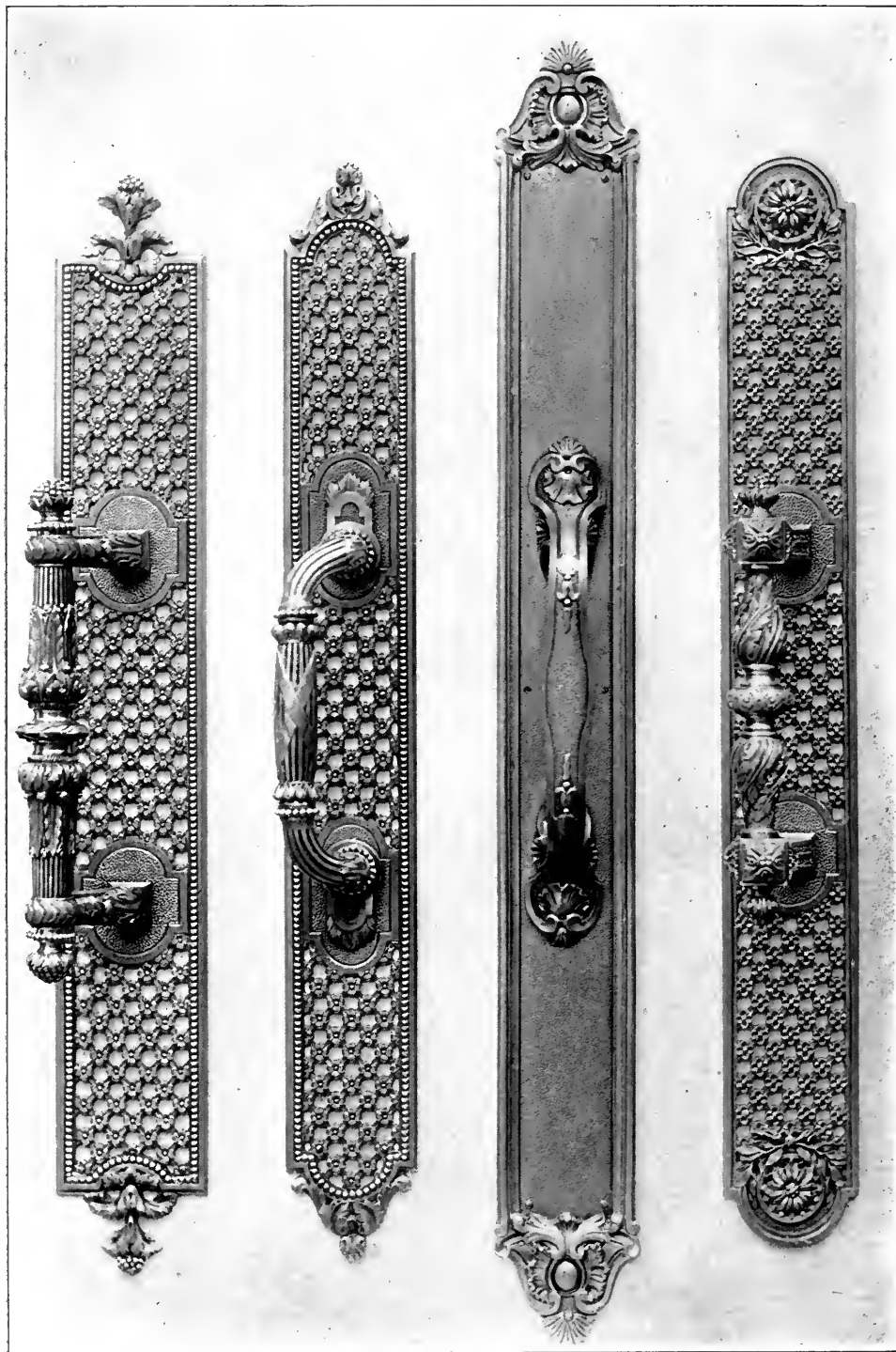
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EXAMPLES OF MODERN FRENCH HARDWARE.

Made by Maison Fontaine, Paris.

Russell & Erwin Mfg. Co.,
 Art Department
 26 West 26th St., New York City.
 Concessionnaires pour Maison Fontaine.

The Architectural Record.

VOL XVII.

FEBRUARY, 1905.

No. 2.

Villas All Concrete.

He that has a house to put's head in, has a good headpiece, remarks King Lear. That cottage you are going to build by the seashore or in the hills, that home for the summer months which must not cost more than seven thousand and surely comes to thirteen, what will you have it made of—wood or brick? half timber and brick or stone? or peradventure concrete and a tiled roof? Whichever you choose, there will be mistakes and regrets. Certain mournful recapitulations will be in order concerning some things forgot, and other things duly considered but dropped through motives of economy. Let us reason a bit on these alternatives as to material.

The house of wood is the popular house in a country so favored with forest growth as ours. Especially the simple Colonial structure of the seashore, with its clapboard or shingle sides, its severe line of shingled roof, sharply cut off at the eaves, harsh in the triangle of the gable, often heavy enough in its proportions, even when the point of the gable is hipped and snipped, and the slope of the roof is broken by a curb or gambrel; especially has this derivative from the less pretentious homes of the colonists been rising like the mushroom along the Atlantic coast. Its merits have been hitherto obvious—unpretentiousness, cheapness to build, cheapness to maintain. The shingles are left unpainted and unstained to take their natural weather tone, which occurs in two or three seasons.

Now true it is that untouched surfaces of shingle on roof and walls, of a bright day, have in shadow certain lovely tones for eyes that note such things with loving care, tones of mauve, of violet, of amethyst. And in direct light, seen nearby, they are finely silvery. But in the long run they have the defect of gloominess in color; the general impression is more than dull. A settlement largely composed of these cottages and small villas and old houses is somewhat mournful; all the creepers and flowers on and near them can do but little to cheer that gentle gloom. Localities where they abound stand much in need of other styles of wall and roof, other materials to give variety and color to the scene. It is true that as Bacon says, houses are to live in, not to look at. But Bacon was so fortunate as to have a wealth of charming old houses to consider and familiarity bred in him contempt; besides, he adds "therefore let use be preferred before uniformity except where both may be had." The fragile materials used by our village forefathers, their lack of wealth and numbers, have prevented in most parts of the United States the formation of old burghs and manors, which time has ripened into things of beauty. The present generation, having won to ideas of art beyond those of former days, is asking for houses that shall be good to look at as well as comfortable to live in.

That people are beginning to feel the dulness and gloom of the unpainted shingle cottage may be seen on Long

Island in such summer camps as East Hampton, Wainscott, Watermill and South Hampton. At East and South Hampton and on Shinnecock Hills are cottages and villages of larger size, embodying the plaster or stucco wall and the painted-shingle, the baked-clay or the cast-metal tile for the roof. Plastered and wire-lathed, and metal-tiled as to roof, is the Italian villa on Lake Georgica belonging to the painter Al-

bert Herter. It presents a contrast less violent than wood to the surroundings. The house is less new-looking, less raw-looking, to begin with; compared with wood, it is less a box dropped somewhere which might be jacked up and rolled elsewhither as one often sees the old timber houses stalking along the roads. It seems rooted like a true growth to the earth. Owing to the old-world originals from which they have



HOUSE OF ALBERT HERTER.

Georgica Lake, East Hampton, L. I.

Grosvenor Atterbury, Architect.

bert Herter. The villa on the hill to the east of East Hampton, belonging to Dr. Clarence C. Rice, like the former, from designs by Grosvenor Atterbury, has its fine big shingle roof painted red. The smaller dwellings, of Benjamin Richards in the village of East Hampton, and "Pink House," the home of Mr. Wiechmann at Wainscott, are plastered frame houses, which offer a happy variant from the mass of unpainted or dully painted dwellings. Yet the result is obtained simply enough by a cement or stucco skin applied to plaster-board or metallic lath.

So far as looks are concerned, the stucco—gray or pink or pale green in tone and grainy as to surface—is a dis-

been studied, the architect has left reasonable wall spaces on which the eyes rest with an undefined but no less real sense of pleasure. As the ampelopsis, honeysuckle and climbing roses invest the lower parts, the house takes stronger root and seems to grow from the lawn or the sandy dune.

On the other hand, even when attempts are made in wooden houses to provide some resting places for the eyes, the material itself cannot fail to suggest that it is a surface of parts assembled, a combination of beams and boards and separate shingles. Unless there is some special beauty in such combination, as in furniture made artfully of different sorts of wood, and



HOUSE OF DR. RICE.

East Hampton, L. I.

Grosvenor Atterbury, Architect.

therefore interesting, the effect is chilling. Stucco or concrete differs from wood or brick or stone in that it brings unity into the wall, suggests restfulness and strength, massiveness and immovableness, as if the building of which it is the support were part of the landscape itself. Even in their abject ruins, deprived of their coverings of marbles and mosaics, the great walls of concrete of the imperial baths at Rome have a ma-

cliff and rocky outcrop from the soil. Do they not stand closer to Mother Earth than wooden structures; taking us back unconsciously through the labyrinth of long-vanished ancestral days, by the obscure paths of instinct, perhaps, to the ages when the race passed untold centuries as cliff-dwellers, mound-burrowers, inhabitants of wattled mud-walled cabins, whitewashed earthen farm and high-walled fortalice? The flat



THE HOUSE OF BENJAMIN RICHARDS.

East Hampton, L. I.

jesty that neither brick nor stone possesses. But if we add to these qualities the colors which the paintless cottages we speak of so conspicuously lack, it is clear that such buildings are very valuable, if it were only to leaven the lump; and, in fact, should be encouraged as a relief to the sombreness of the townscape.

Why do we hail with satisfaction in Spain or Mexico, Italy or France, those gray or ivory white, yellowish, pink or pale green walls, so simple and uncostly, as they appear to us with their concomitants of vineyard and olive orchard? Is it not because of a faint suggestion of

roofs and long, unrelieved walls of Oriental towns appeal to us through atavism, it may be. Who knows but this may explain our liking for such walls as much as do the more logical and immediate reasons of economy and practical worth?

That there are reasoned grounds for this liking is apparent. Beside a certain quality in the colors on stucco or concrete, a quality which cannot be obtained by unpainted or by stained or painted wood; beside the special claim of the shadows from deep eaves when they fall on broad, united, grainy surfaces, there are impressions of dura-



VILLA OF MISS ANNE ARCHBOLD.

Bar Harbor, Me.



COURT OF THE VILLA OF MISS ANNE ARCHBOLD.

Bar Harbor, Me.



LIVING-ROOM IN THE VILLA OF MISS ANNE ARCHBOLD.

Bar Harbor, Me.



THE HOUSE OF J. WALLACE MORRELL.

Allenhurst, N. J.

Totten & Rogers, Architects.

bility, of security from fire, of impenetrability by damp and like suggestions of a practical kind which may not be altogether true in the wall that has a plaster skin, but at any rate seems true. I venture to say that brick seems less durable, less serviceable in keeping out the cold of winter and the heat of summer. As a matter of fact, a well-built, solid concrete wall, and even a thoroughly finished stucco, should be less permeable to wind and moisture than one of uncovered brick. So that there is good practical reason for covering brick with stucco as a reinforcement and ceiling against the drive of the rain storm, however that fashion may be decried as lacking full sincerity in the æsthetic sense. The town and country architecture of Europe and Mexico still uses the brick housewall clad in stucco, and molded to simulate great courses of stone—a sham, of course. But then, what is this villa architecture of frame house, metal lath and plaster skin but a sham also? It simulates your stone house, or your brick laced with stucco, or your solid wall of concrete. Is it not better to go frankly over to the last-named and build so that houses will remain practically unchangeable, only gathering grace with age, gaining a fine patina, but subject to ruin neither by fire nor decay?

There is another reason beside the æsthetic advantages for believing that henceforward our cottage and villa architecture will turn this way. Wood is getting dear—to put it mildly. Inevitable optimism has “done for” our forests as it has for the buffalo—optimism or incurable devil-may-care, as you prefer! At the same time, the substitutes for wood are increasing in number and getting cheaper. More factories to furnish hollow tiles, decorative bricks and plaques, cheaper cement and artificial stone of a durable kind are springing up. Unburnable materials like “*lignum*,” similar to brick in hardness and wearing capacity, but like to wood in lightness and the power to hold nails without cracking; but superior in its practical indestructibility, are rapidly becoming less costly than wood, nay, are already

less costly in the long run, because they need no painting or repairs. They are formed from inexhaustible earth by kiln heat or by mixture with some proportion of cement, or steam or some chemical change, or by simple compression, and in any quantity. Wood, on the other hand, takes long to grow, and demands constant watching against fire and thieves before it is ripe and available as timber.

Back of these structures, which are so picturesque and satisfactory to the eyes when we see them in Mexico or Italy, lies the old farm or town-house on the classic or Oriental plan, built round three, if not four, sides of a yard, with its rooms lighted from the inner court. Hence the rare windows outside, hence the broad, untroubled surfaces which comfort the eye, but also hence the unfriendly, offish look of village streets in France and Italy, where each house seems to be turning its back and bidding the stranger begone. When, therefore, we seek to obtain these broad, simple spaces in a free-standing villa of moderate size we are met by the necessity of piercing the walls with many windows, for the light must come from outside, and each room must have one or more windows. The problem grows complicated. We want the fine points of the old liberal villa, with its inner court or patio, but we cannot bear the cost of low, wide, liberal houses, nor spare our many rooms, our fenestration, regular and hygienic, our drawing-room and dining-room, the hall, the baths, the convenient and airy kitchen—in fine, a dozen things which to our climate and habits are indispensable—all crowded together, moreover, into comparatively narrow limits. For we are not considering the country house of the wealthy, who can build broad or high, and reproduce, if necessary, the villas of Italy and Spain or the palaces of Europe; we are thinking of the summer houses of people of very moderate means. Even if we could have the inward-looking house, with central courtyard, at a low price, we would not want it, because we like to have views in all directions, if possible from all rooms,



HOUSE OF D. R. CRAIG.

Wellesley, Mass.

W. D. Brown, Architect.

and our effort is not, as of old, to concentrate the family life in the central court, but to give the different members of the family as much opportunity as possible to have rooms to themselves for rest, or quiet or study. The modern cottage seeks to decentralize the family so far as it can be done within narrow dimensions and at moderate cost.

The Spanish or Italian villa, on a somewhat costlier scale than mentioned above, may be seen in the design of Miss Anne Archbold for her house at Bar Harbor, a country house planned in part by Miss Janet Scudder, but one in which the owner's personal taste has found an outlet. Here the broad wall-spaces cut sparingly for window and door, the low roof and widespread ground plan, have the charm of the old dwellings that go back to Roman days, those villas

that we find at Pompeii, their lower stories preserved for all time by the hot, grainy outpourings from Vesuvius, a black, unmelting hail that tenderly covered up many a choice bit of painted wall, many a work of household art without destroying it. Houses with one or more courts cannot well be raised higher than two stories or three without making the courtyards dark and unfitted for their purpose, which was a well-sheltered, open-air life. Thus the typical Greek house must have been only two stories high, with a cloistered or colonnaded courtyard for men, a dining-room beyond, and back of that a cloistered courtyard for women. Toward the street, or outward, only the upper story had windows, bays or balconies. Naturally the monastery and nunnery of Christian times repeated this arrangement, for it pretty effectually

shuts out the world beyond the four walls. In the turbulent Middle Ages the private dwelling in town and country might well follow the same general plan for the safety of the family; but in modern times the necessity for this seclusion no longer exists. When it is found in America it means that the builder prefers the sense of living secluded, as some enjoy surrounding their property with high stone walls to prevent the intrusion even of a prying eye. The general tendency, however, is outward rather than inward, a multiplication of windows, porches and balconies, and a dispensing with even so much as a fence as boundary, so that the line between lawn and high road is merely marked by a stone coping or a slope of grass.

Moreover, the great variability of climate on the Atlantic seaboard militates against the old-world villa architecture. We have to provide a house

that follows the ups and downs of the thermometer, as it were automatically, now raising defences against a torrid heat, now closing itself against sudden cold or the damp from torrential rains. Our fierce winters make us sensitive to cold because they force us to keep our houses very warm; even the summer bungalow must be prepared for a slight fall of the thermometer. We are not so heroic as the English and Italians, who support their few weeks of severe weather with resignation rather than put their houses in condition for short seasons of cold; our agony would last too long. The cloistered courtyard has to be an exotic, save in Florida and Southern California. Our roofs must be much tighter than are the handsome tiled coverings of Italian villas, and our kitchens have to be nearer to hand. We carry comfort to a degree which earns for us the scorn of Europeans, many of



RESIDENCE OF MISS CATHERINE ARMS.

Youngstown, Ohio.

H. F. Kling and C. W. Buchanan, Architects.

whom regard blue noses and chilblains as part of the necessary rigors of life; but a short residence in the United States cures them of this disdain, and they discover that the climate of the new world exacts compromises which they had not foreseen.

But if the ordinary owners of a country house cannot afford a low Spanish villa, with inner compound green and flowery where a fountain murmurs

brick to heat and cold, dampness and wind. In countries where it is common this is not only a cheaper but rapid method of construction than wood or brick or stone, and admits of decoration in many ways, either by incrustations of tiles or shells, by modeling in plaster reliefs, by washing with colors, by geometric designs with colored bricks.

Ruskin says somewhere that ornamentation is the principal part of archi-



THE HOUSE OF CHAS. E. WHITNEY.

Vineyard Haven, Mass.

J. Williams Beal, Architect.

above a pool full of water-lilies, he can have a picturesque exterior.

The next step away from wood construction is to make the stucco walls of villas really solid masses of concrete, and here and there we see this step taken. Long wooden boxes without bottoms are employed to mold the solid, thick walls, which are built up of concrete formed on the spot of cement and sand, or broken brick or stone, in the ancient way, the concrete hardening to the consistency of soft stone, and offering even better resistance than stone or

tecture, considered as a subject of fine art, but in this country we seem to fear ornamentation of buildings, perhaps because the attempts have been made by architects who have no talent in that field, more likely because, according to our means, we aim at size rather than beauty, quantity rather than quality. Some buildings discovered during excavations for the new quays on the Tiber at Rome afford an example of the boldness and cleverness of Roman decorators of house walls. They laid the plaster, and while it was wet fashioned it by

hand in figures and arabesques of low relief, and then applied colors and even gilding with true artistic feeling as well as technical skill. Similar if inferior treatment of the fronts of half-timber houses was common in Northern Europe during the Middle Ages.

In France and to a less degree in Germany there has been of late a sharp return to this early method of building, especially for small town houses and

thetic to the practical, there is wisdom in this madness, in so far that a villa built throughout of concrete is almost indestructible and insurance against fire is scarcely needed.

What is the Spanish cement or concrete house, what the ancient Pompeiian, other than a style founded on one of the oldest forms of house-making, that of wattled cabins, round or square, which the early dwellers in Europe



STABLE OF DR. NATHAN B. VAN ETTEN.

Borough of the Bronx, New York City.

Robert W. Gardner, Architect.

villas. *L'art nouveau* has seized on the idea very naturally, because in concrete and with the plaster exterior we can shape those fantastic designs and curves which seem so attractive to the very modernest and most progressive of architects, though the results often suggest the carved work on Papuan paddles. There is in this revived style an analogy to certain trees like the birch and the palm, which have generous, smooth, united trunks and liberal roofs of green. And, to spring from the æs-

daubed with clay, whitened with burnt shells or limestone, and decorated with earthy pigments dissolved in water? It is a practical method of building, so remotely antique that history cannot guess its origin. In France there is M. Hennebique, who has revived it with modern innovations that permit of making floors and walls and stairways much thinner than the ancients used to build, and yet with great stability and strength. Deeply embedded in the mass of concrete, as the wooden forms that mold the



STABLE OF DR. NATHAN B. VAN ETTEN.

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walls, beams under floors, etc., are filled, are rods of iron and wires placed apparently at random, but well calculated to strengthen the material. He has likened them to the nerves that steady and control the animal fabric. Perhaps it would be better to find an analogy in the straw that early nations mixed with sun-dried bricks. The concrete in drying crystallizes round the rods and wires so firmly that the latter become part of the material, and prevent its cracking or parting under strain. In the United States, too, we hear of warehouses and grain elevators constructed throughout of concrete, floors and roofs as well as walls. Railway stations and armories also have been constructed of this material wholly or in part, not to speak of retaining

walls, quays, sea-walls, culverts, bridges and esplanades.

In the borough of the Bronx a young architect has recently built for Dr. van Etten a stable all of concrete—cellars, stairway of the horses, floors and supporting beams, chimneys, rooms for coachman, even the roof, as the illustrations show. The only wood used is for the frames to windows and doors. The concrete beams, twenty-five feet in the span, that support the carriage floor, have within them iron rods of no great size or thickness, not running from wall to wall, not even touching, but laid separately, flat or tilted, as seems best, for the purpose of making the concrete tougher. They are about eight inches thick, and the floor above them four



STABLE OF DR. NATHAN B. VAN ETTEN.

Borough of the Bronx, New York City.

Robert W. Gardner, Architect.

thick. They have been loaded with sixteen tons, and showed only a deflection under that weight of one-sixteenth of an inch. Chimneys and stairs are of the same material, and so is the roof. The walls are four inches thick, and if it were thought necessary to have an air-space in such walls, there would be no difficulty in embedding flat, hollow tiles throughout. As it is, Mr. Gardner has used square hollow tiles for the flues of the chimney.

The concrete he uses consists of one part Portland cement, two parts sand and four of broken stone, or in some places four of screened and washed coal ashes. The stable is impervious to water below and above, it cannot take fire, and, owing to the fact that concrete is

a bad conductor of heat and cold, it preserves an even temperature than stone, brick or wooden stables. Moreover, the floors are so modeled that there are no curves or cracks in which dirt can collect. The bins for feed can be part of the wall, and are inaccessible to rats. A hose can be used to wash floors and walls and ceiling, and the damp does not linger.

Though so simple, and one may truly say so primitive, this style of building has still to make its way. A magnificent example of a somewhat similar kind of construction is the Ponce de Leon hotel of Carrère & Hastings, at San Augustine, Florida. Concrete floors are also getting the fashion; witness the Metropolitan Club and the new palace of Sen-

ator W. A. Clark on Fifth Avenue. There is every reason, however, to believe that it will be applied more and more, at first to small villas, stables, etc., especially in places like the Pacific Slope where, indeed, it might be termed native under Spanish precedents; also Long Island, the Jersey coast, Cape Cod and other Atlantic resorts where wood is costly, the air is full of vapor and salt tang, and the chief ingredients of concrete can be found close at hand. One drawback, on the score of economy, will yield to the demand—its newness on the Atlantic coast and the inexperience of ordinary builders and contractors. Workmen are not familiar with it; contractors very naturally hesitate to give an estimate of its cost.

There can be little doubt that a wall of concrete of proper ingredients, well rammed down, will be cooler in summer and warmer in winter than any other kind of construction of the same thickness, and that the time is close when it will be as cheap as, if not cheaper than, wood, and of course more economical than plaster on metallic lath or plaster board. The metallic lath is always in danger from rust unless the greatest care is taken that it is kept from contact with the air, so insidious are the approaches of oxidation. It is safe only when the workmen are watched, and every inch of lathing that goes into such a wall is scrutinized to see that there are no parts which fail to be completely covered by the plaster. With the all-concrete wall a workman can hardly go astray. The openings for doors, windows, flues, and ventilating shafts are fixed, and the walls about them rise swiftly as the wooden forms are shifted upward. The marks of these forms can be smoothed away while the concrete is not yet hard. The composition forms an almost indestructible mass, which supports perfectly the low-eaved roof, and is a capital non-conductor for heat and cold. Where a long-continued driv-

ing rain will penetrate brick or wood or thin plaster, the cement wall cannot be pierced by water or wind. Its thickness admits of deep embrasures and window seats; its surface lends itself to modeled and colored decoration without limit, if the owner prefers that to simple lines. Nor is there any reason why the floors and stairways should not be made as solid and indestructible as the walls, using a good quality of concrete, of course, and eliminating thus as far as possible the woodwork that ensures the destruction of a country house as soon as fire gains headway enough to attack it. For libraries, museums and art galleries, that contain valuable books and paintings, the all-concrete building is the one that will be in demand.

Our people seem to have a fear of color; they are very Quakers in the soberness of their homes. They should grasp the opportunity to employ a simple, practical form of building consecrated by the ages—"as old as the hills"—which permits the use of soft, bright colors, and is as well fitted to peep from the bosom of deep woodlands as to smile across the bare, wind-swept moors by the sea, where

. the pointed cedar shadows
Drowse on the crisp gray moss.

Even the comfortable red roof is not much used by city folk on their villas, although the country people, following their taste without the fear or, indeed, knowledge of critics, are prone to paint their barns and often their sheds, their houses and covered bridges, red. Yellow for walls is a favorite with city folk because it is supposed to be Colonial, and has precedent in its favor; it has fortunately taken the place of a reddish brown that invaded country villas at one time, and demoralized the landscape with its disgusting tones; but as with red, so with yellow; the trouble is that house-painters, through defective color-sense, are capable of any color-crime.

Charles de Kay.

The Perfect Theatre.

DEDICATED TO THE MEMORY OF E. S. P. & E. P. M.

"That men may rise on stepping stones
Of their dead selves to higher things."

An architectural critic of the 18th century describing a foreigner's arrival at a city remarks his curiosity which led him in the first place to visit the theatre. Here he received his first impressions "of the state of the arts, of the genius and the manners of the people." Centuries earlier, in classic times, Vitruvius tells us that in laying out a new city, the theatre, or place of amusement, was located next after the Forum, or place of business. He says, "A spot as healthy as possible is to be chosen for the theatre."

Two considerations are apparent here. The ideal of the classic architect was material. It concerned the material welfare of the people. After the Renaissance of Art came a wave of Aestheticism. The "state of the arts" divided attention with the "manners of the people." The theatre of to-day is a reflex of society, just as it was 200 or 2,000 years ago. Ours is an age of both material and aesthetic standards, and the perfect theatre must be judged by both. The exquisitely decorated Auditorium captivates our sense of beauty, but cramped quarters and a headache will distort the most exquisite creation. On the other hand, thorough ventilation, comfortable seating and the sense of security arising from a well-planned and ably managed building have won half the battle for an aesthetic complement. Granting the necessity for both, I think we may at once admit that the *sine qua non* of the Perfect Theatre is its provision for the safety, health and comfort of its patrons.

On this subject, several well-known writers have established what may be called a standard. I refer especially to Messrs. Foelsch & Sach's in Europe and Mr. W. P. Gerhard in America. These gentlemen consistently tell us that the necessities for Safety in theatres

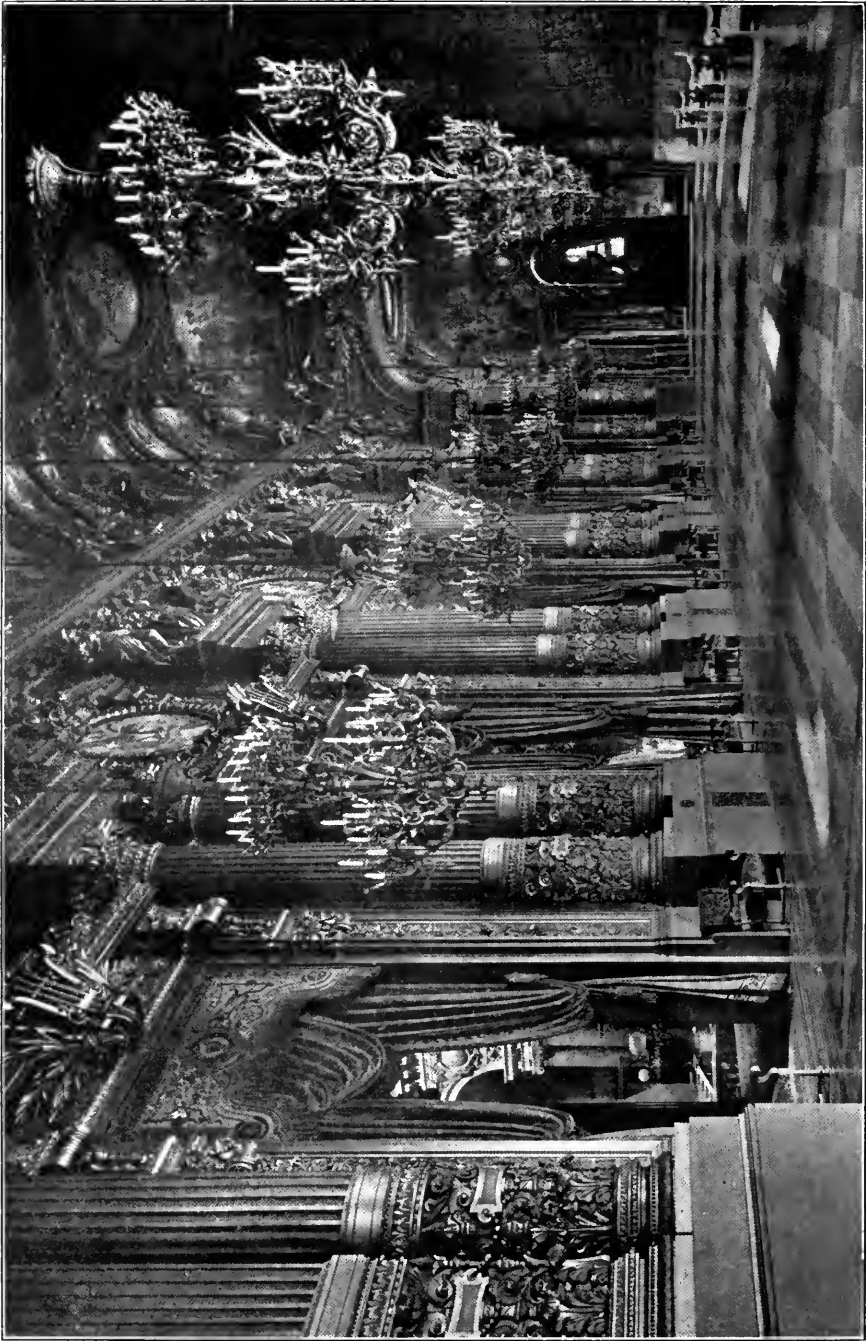
and in their order of importance may be placed like this:

- 1st. Good Planning,
- 2d. Watching and Inspection,
- 3d. Fire resisting construction.

Subordinate considerations also affecting health and comfort are sanitation, heating, lighting, ventilation, and the like.

It is not my present purpose to go into a repetition of details for these necessities which have been so ably covered in Mr. Sach's "Modern Theatres and Opera Houses," and in Mr. Gerhard's "Theatres." I propose to take up the subject in a more general but perhaps quite as pertinent a way. And this by reason of certain new phases, which recent conditions in theatre operation seem to have forced upon us.

If one should attempt to describe the Perfect Theatre it is just as apparent as ever that such must be the result of an ideal society. And in one particular the ancients certainly had an advantage over us. Whereas their buildings were situated and designed for the benefit of the people, to-day it is the box office which must be accommodated. For while in Classic and Mediæval times the funds were provided by the State, it is impossible under private enterprise to equal the liberal provisions which an undertaking for profit forbids. A well-known financier, approached quite recently to endow a model theatre, replied, "There is only one successful endowment for a theatre, and that is through the box office!" This sentiment is wrong, because the public often errs in its support, and always benefits by education. There is perhaps no more worthy field for the philanthropist than the endowment of splendid theatres. We know that the Greeks set apart their finest site for the theatre, and this practice prevailed for many centuries.



THE FOYER OF THE OPERA HOUSE.

Paris, France.

In our day, private enterprise counts a frontage too expensive, so the "single entrance" plan has been adopted.

The theatre proper occupies the interior of a plot of ground, the street frontage being devoted to other purposes, with one or perhaps two passages reserved for entrances. New York boasts several theatres typical of this scheme, as do almost all our larger cities, but the significance of this state-

type, and there are a hundred similar instances, all disparaging to our modern practice, in so far that health and safety have been sacrificed for financial reasons. If the box office cannot remedy this, the philanthropist might.

Then again heating, lighting and ventilation which the Greeks obtained from nature, are with us important matters of engineering. Sight lines and acous-



ROMAN AMPHITHEATRE AT VERONA.

ment is that they constitute the newest and most costly of our buildings. A recent contributor to these pages has ably described the decorative schemes of the New Amsterdam, the Empire and other Metropolitan playhouses. But what of the material, the practical side of these theatres? Compare the single entrance—the niggardly street frontage—with the majestic setting—the splendid isolation—of a European Opera House. We will take for example Gotham's New Amsterdam and Copenhagen's Royal Theatre. Each one is a

tics, construction, decoration, planning and last but not least the care and management of the house after its completion, were comparatively simple matters in the isolated structure of a single purpose. But with the crowding together of many interests in the same block—yes and under the same roof—the designing of one of these intricate theatre structures has become to-day perhaps the most difficult problem an architect may undertake.

Could we be carried back 2,000 years to the simple lives of the Roman and

the Greek, retaining all we have learned that is good, obliterating all we have acquired that is bad, then indeed might the Ideal Theatre, in its main necessities, be realized. Even now in the most vital principles of design the 20th century architect can find no happier inspiration than the works of those Classic Master Builders, which still mutely testify on the shores of Italy and her sister States, to an art whose simple beauty stands unequalled and alone.

One must needs approach the subject of the Ideal Theatre from the standpoint where these ancients were supreme. The impression one gets above all at Pompeii or at Fiesole, at Taormina or at Rome, is the same; here was the simple, the natural, the perfect plan. Vitruvius tells us that proportion in architecture was inspired by the divine symmetry of the human body and that its members—hand, foot, etc.—were the origin of the measures used in building. The architect of the Classic Theatre drew first a circle—symbolic always—like the Buddhist's wheel of Destiny. The Greek inscribed within it squares, the Roman drew triangles, but both with a well-studied system by which the points of either figure indicated width and depth of stage and pointed direction of aisles and exits. Vitruvius has left an account of this system of planning, and I can imagine nothing more superbly fitting in the Greek architects work than this, his flawless nature plan, inspired by the 12-pointed star with which the astrologers had traced their sphere. The signs of the Zodiac stood to portray every human characteristic; they were a record of all the seasons of time and life. So upon this eternal frame, encircled by the endless line which stood for immortality, the Greek architect built his theatre, where was to be depicted the whole gamut of life's changing play.

On the heights above Florence the little "mother city" of Fiesole boasts one of the best preserved classic theatres, and at Taormina, in Sicily, is an example similar to Fiesole, but still more picturesque. In both instances the site has been chosen in a gentle hollow in the

mountain side, the chiselled steppings following the natural contour of the land. Here for a back ground majestic Aetna towers 14,000 feet above the sea. Such a setting was the Ancient Greeks' delight. It only remains to add that their roof was the canopy of Heaven, their border lights the sun; and we can never equal the perspective of their stage setting—the distant view of mountain, vale and sea.

To-day we are hampered by the demands of a civilization thoroughly artificial, which with every decade becomes more complicated.

The Greek found no necessity to guard against fire and panic where was nothing combustible and every seat an aisle. No fear that light or ventilation might fail with nature as the source. No restriction necessary for the jerry-builder where the quarry side formed the wall. But more than all, as conducive to the safety of the audience, was his scientifically radiating plan which not only stood for ease of movement, i. e., in straight lines, but better still, a *continually increasing ease*.

This is a vital necessity of theatre planning, which present practice quite ignores: that as the audience is dismissed, each succeeding stage shall be easier than the last.

To illustrate: The building ordinances of most cities require a width of $1\frac{1}{2}$ ft. for every 100 persons, as the capacity of aisles, stairs and exits. This is a very scanty measure and should be increased, but on a graduated scale as follows:

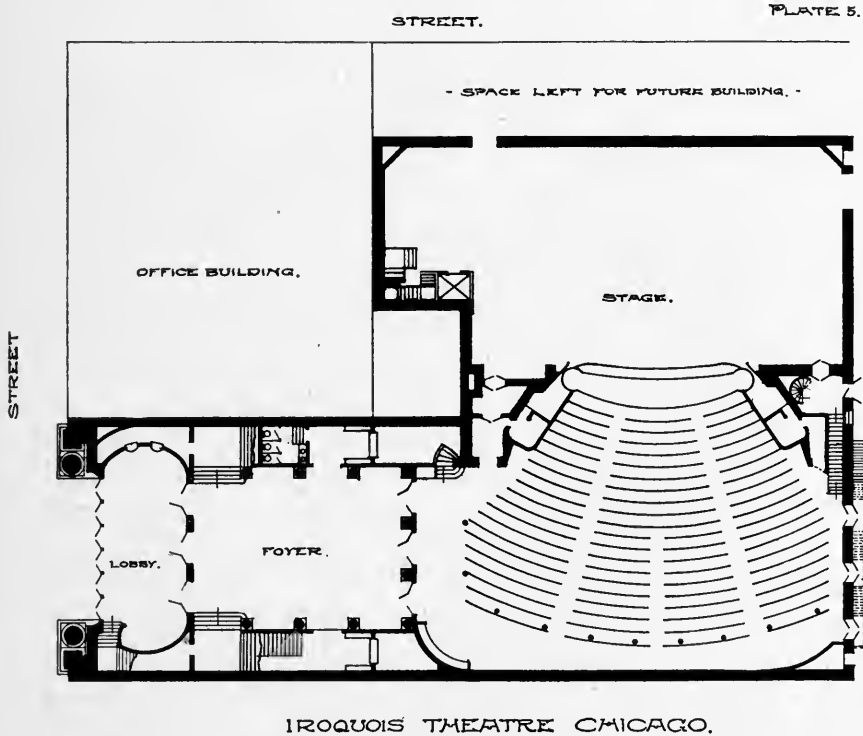
Aisles between seatings, capacity of $1\frac{1}{2}$ ft. for every 100 persons.
Corridors in rear seatings, capacity of 2 ft. for every 100 persons.
Stairways behind corridors, capacity of $2\frac{1}{2}$ ft. for every 100 persons.
Final exit doors, capacity of 3 ft. for every 100 persons.

The congestion which usually occurs in the rear of seatings and out as far as the exits while an audience is being dismissed would in this way be avoided and many deadly panics averted.

The subject of plan naturally suggests a word on the much advertised "emergency exit." In the sum of all things

puerile, I know of no more cruel invention. This country alone of all civilized nations, allows and even sanctions it. I state this after a critical inspection of a large percentage of European theatres. Anything which savors of the unusual to the same extent makes possible danger in a theatre plan. The most successful theatre manager is he who takes his audience completely into his confidence as regards all arrangements for

right hand or north of Chicago's Iroquois Theatre, seating 1,900 people, were three emergency fire escapes. The manager had told his employees never to open them except on his personal orders. Consequently when needed to save life they were not ready for the emergency, and when forced open, were found, but too late, to be utterly inadequate. Just one day's trial would have condemned these ill-planned, flimsy es-



seating and exits, and inculcates these by force of habit. The audience must be dismissed with ease, and be conscious of that ease.

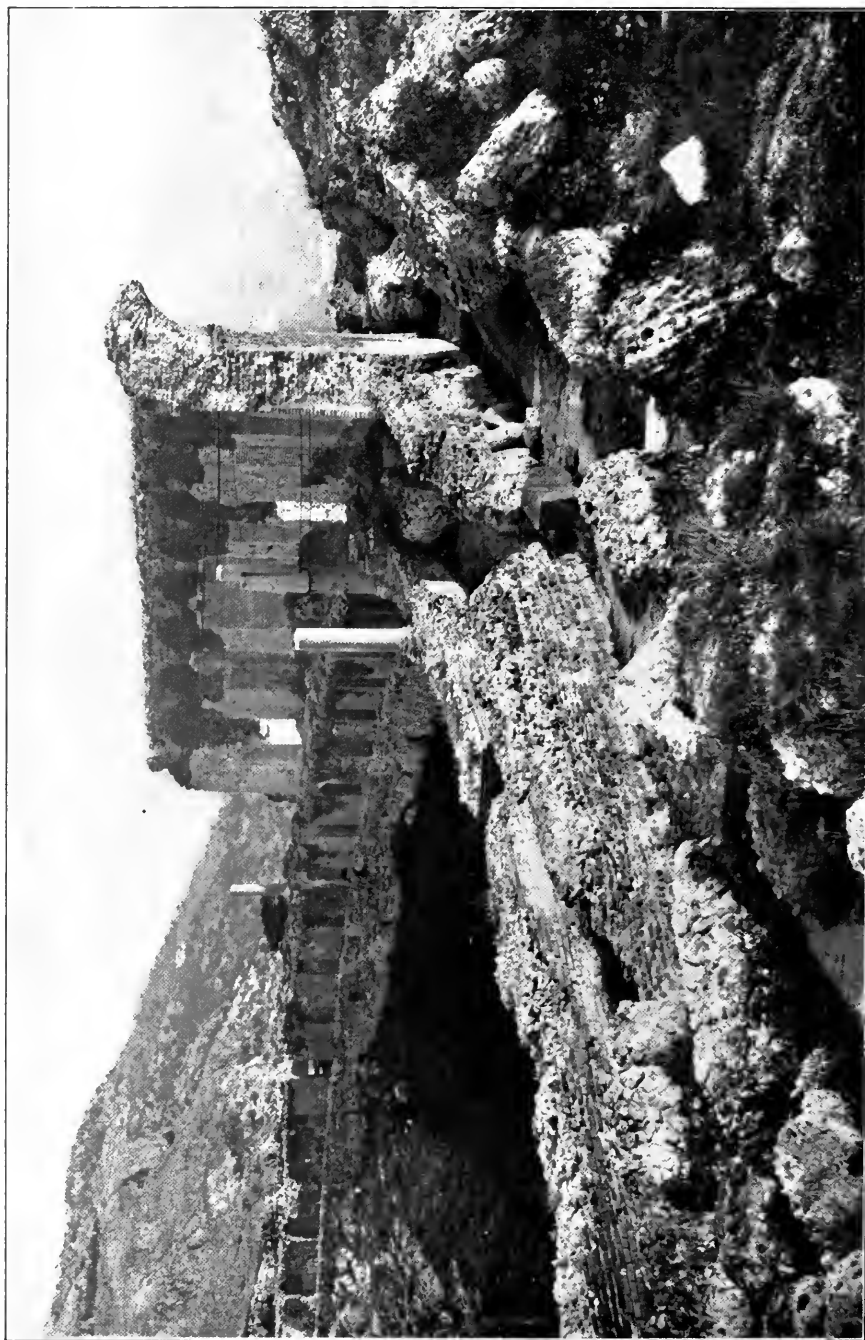
On all programmes of London playhouses will be found the following notice: "The public at the end of the performance may leave the theatre by *all* exit and entrance doors." A law to compel the daily use of every exit will avoid the rusting of locks, accumulation of debris, and blocking of passages, which the manager trusts to luck may never be required.

To illustrate: The only exits on the

capas as unfit for use under the most ordinary circumstances. But they were for emergencies only, and their first test cost the lives of 600 persons.

Such is the emergency exit.

The "single entrance" plan was the scheme of the Iroquois Theatre. The editor of a leading architectural journal writes that the possibility of the late disaster "may be found in the plans of the building." After centuries of noble example in safe planning, the American dollar has decreed that nearly two thousand people shall congregate in a playhouse with but one regular entrance



THE GREEK THEATRE AT TAORMINA.



THE GREEK THEATRE AT TAORMINA.

and exit, and that not even located on the main axis of auditorium and stage. For the rear imposed a cruel barrier, 100 feet wide and almost as high, with not a solitary opening to break the dread prison wall. And yet money had been lavished on this fated building; the construction was thorough, and we may even say fireproof in the sense that a stove is fireproof. But a stove is designed to facilitate combustion within it, and the shape of the conventional auditorium with its up-draft ventilation is built upon exactly the same principle.

It is not fireproof theatres we need so much as Panic-proof; the proof born of the simple and the natural plan. The free and unrestricted area with open spaces on all sides is the first imperative requirement. We legislate this, but we evade it. If under present circumstances theatres cannot be made profitable upon such expensive sites, does not the advent of quick and cheap transportation offer a less expensive substitute? Or if we must have some centrally located playhouses then admission prices must be advanced, or better still, the profit-taking spirit may be eliminated by the advent of the philanthropist into the field of endowed theatres.

The Perfect Theatre necessitates first the Perfect Site, so that the architect may give it a fitting and proportionate plan. The ancients understood this. Their semicircular plan radiated exits, and more—each continued on its individual axis to the street. Perhaps the most noteworthy example is that mighty fabric, the Roman Theatre of Marcellus which seated 14,000 persons, and is the largest theatre recorded in the world's history. (See page 110.)

If its noble builders could have seen it as I did some time since, its ancient glory given place to the needs of housing the very poor of modern Rome, they had still seen it harboring tragedy, and perhaps more realistic than of old. The ruin mentioned is typical of hundreds of others in Italy and Greece. And later, in the days of the Renaissance the great Palladio still adhered to the radial principle. The noted architect whose fame is written in the façades of many of the

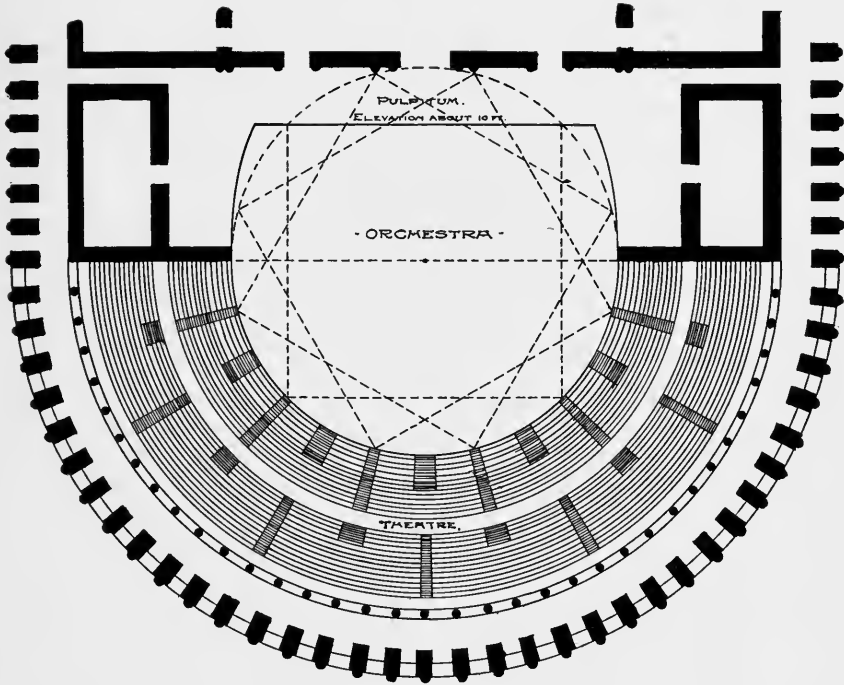
greatest palaces on the Grand Canal, although little known in this connection deserved equal fame for his theatre of Vicenza. (See page 110.) For in that noteworthy plan he first used the ellipse instead of the circle, a premonition of the modern instinct which would draw the audience closer to, and more nearly in front of the actors.

The twentieth century has emphasized this desire for width and shallowness, combined with the Greek radial plan. Its logical conclusion may be seen in a new Chicago theatre where the elliptic plan has been completed. (See page 110.) These three types, viz.: the circle, the ellipse and the oval, show a reasonable sequence of endeavor, from which the Ideal Theatre must eventually be evolved. The Gallic and Italian horseshoe plan and the oblong square of England and America, which have predominated for several centuries, lack many advantages, and in the best practice they are now virtually discarded.

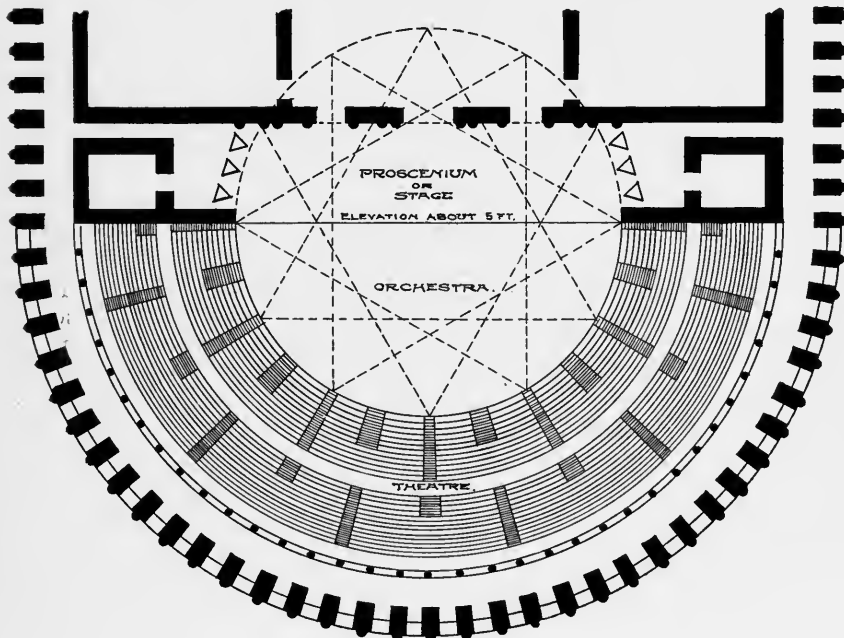
Again concave surfaces are recognized as an aid to sound; they concentrate the sound waves and increase the volume. In the Chicago Theatre just mentioned, a thin resilient partition forms the entire enclosure of the oval and also extends up into ceiling and dome. It was accidentally demonstrated that the sound waves cause vibration of this shell, which becomes, in fact, a huge sounding board.

One of our difficult problems, which the old Greeks escaped, consists in the projecting balconies of the modern theatre. Cantilever construction has made an enormous overhang possible without the use of obstructing columns, and here ensues a subtle danger, that of bringing the occupants too close to the dread inflammability of stage equipment. This extreme projection should be prohibited unless, as I believe, we are upon the eve of a new use for, and benefit from mechanical ventilation. As practised in some of Vienna's later buildings, the system becomes a safeguard by its constant current from auditorium through stage opening and up through stage roof. I do not hesitate to say that, in the light of present knowl-

PLATE 2

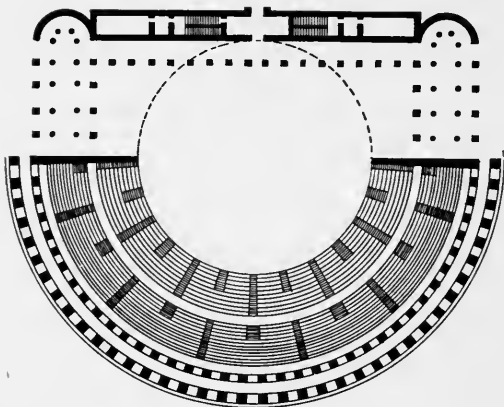


ANCIENT GRECIAN THEATRE

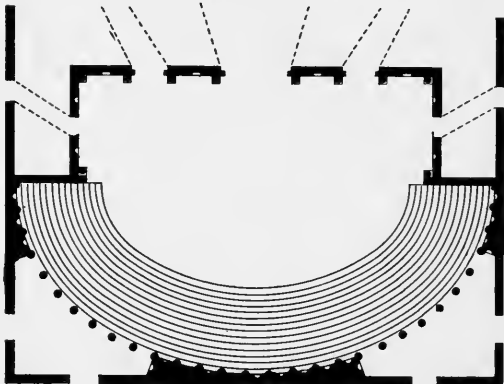


ANCIENT ROMAN THEATRE.

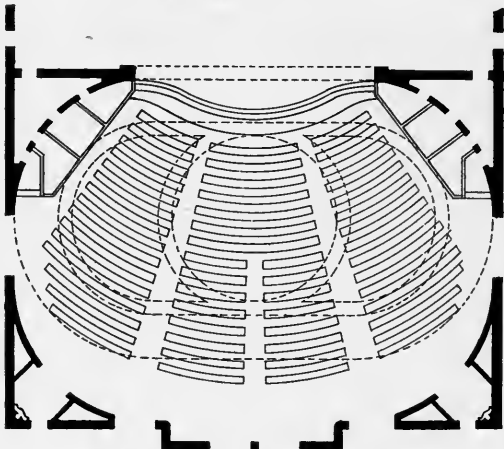
PLATE 6.



THEATRE OF MARCELLUS, ROME.
CLASSIC PERIOD.

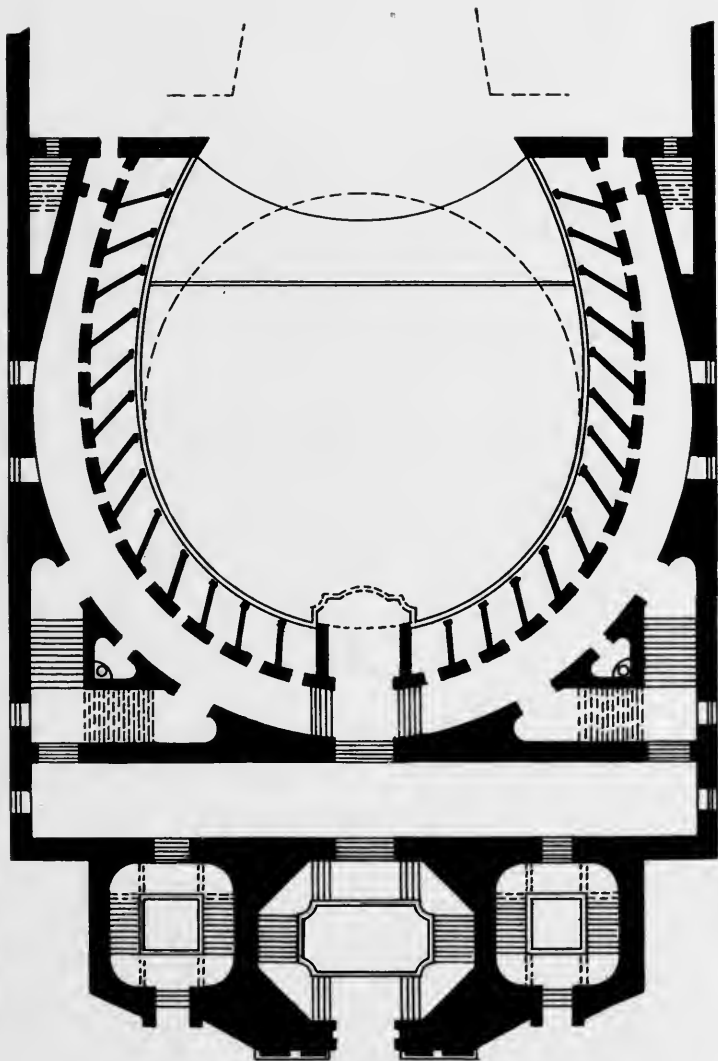


THEATRE AT VICENZA, ITALY.
RENAISSANCE PERIOD.



BUSH TEMPLE THEATRE, CHICAGO.
20th CENTURY.

PLATE 6



SAN CARLO THEATRE, NAPLES.
TYPICAL OF THE HORSE SHOE PLAN OF ITALY & FRANCE.

edge the up-draft method principally used in this country, the intake of fresh air under seats and the exhaust through ventilators in ceiling *over the auditorium* (page 113), is a criminal practice fraught with the gravest danger.

The downward system invented by the French engineer, Morin, and used with much success in several continental and American houses, escapes that responsibility, because in forcing the air in at the ceiling and drawing it out beneath seats the downward pressure extends also laterally, i. e., in a limited degree through stage opening. It is well to note that a Commission of Theatre Experts employed by the Chicago Tribune, reported: "Any system of ventilation which could draw smoke or flame therein from the stage should be suitably safeguarded." But how? I repeat that the ventilating system must itself form the safeguard.

Prof. Brouardel has shown that the majority of theatre fires start upon the stage and that the loss of life usually occurs from the flames and smoke which immediately penetrate into the auditorium. Late efforts to guard against this source of danger have only temporized with the real need. What reliance can be placed in hand grenades or standpipes when contingent upon human watchfulness or resource. How can we depend upon sprinklers whose advocates claim that the plugs are "almost sure" to fuse. What certainty in a steel curtain which in the critical moment often fails to work.

Where is the safety in fireproof scenery whose virtue at most can last only three months? Who is to guarantee the opening of stage vent in time of peril? These things are all good as far as they go, but they are all uncertain. Sprinklers certainly should be required over every stage with scenery. I am not decrying the use of any other reasonable safeguards.

But I believe the greatest measure of safety lies in a ventilation system specially designed to that end, and I look to see the experts take up and solve this problem which I can here only outline. The ideal system would be one in

which the fresh air is forced in through perforations in the ceiling and at the rear of the auditorium. The current would be drawn through the stage opening and out through ventilators—*always open*—in the stage roof. It would be sure because constant, its operation being denoted by tiny streamers placed in the proscenium arch. And this apparent protection would make for confidence in the audience and therefore dollars to the management. Once more imagine, if you will, the advantage of a system of protection which on account of its publicity cannot be allowed to lapse! In contrast all our present measures are left absolutely in the hands of an undisciplined and ever changing stage crew, and we expect safety! It has been stated that air currents through the stage opening would interfere with the operation of scenery. But this is obviated by perforations over and at sides of the proscenium, connected by a special duct to the roof, thus continuing air currents when the stage opening is closed. The interference with acoustics is insignificant in comparison with the security gained.

This security lies in the fact of a constant initial current; an ever open stage vent; a combination ensuring the right direction of any conflagration which might occur.

In addition fusible links should be provided, which at the first flame would throw open other enormous auxiliary roof vents, making the aggregate size of these not less than one-eighth the area of stage.

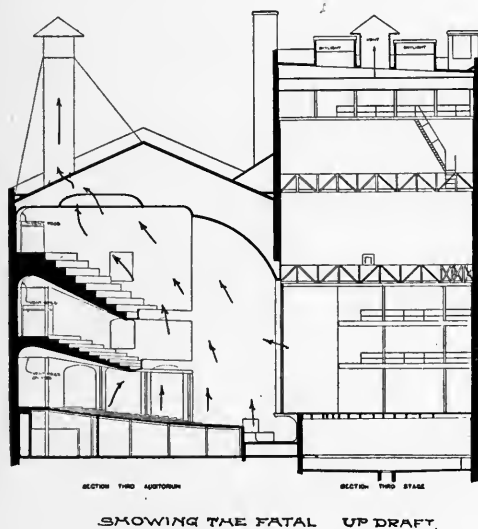
I have dealt with ventilation in what I believe is its most urgent phase—as a safeguard. Its importance as a measure for health is well understood. But in many theatres it is ignored, so that experiments have proved the air more foul than that in a street sewer.

Elaborate systems have been abandoned or mutilated because of the trifling cost of operation. Some of the most important theatres come in this class. I know of one whose splendid equipment became entirely forgotten through disuse. In another the manager inserted by-passes in the ducts to

save the operation of a fan, and ruined its efficiency. I can name a celebrated American theatre whose manager acknowledged he did not know which his house had, the up or the down draft system.

There are so many ways in which the ignorance or cupidity of a manager may destroy the merit of an intelligent architect's plan.

Lighting, which with ventilation was so easily disposed of by the Classics, be-



SHOWING THE FATAL UP DRAFT.

comes a special problem in these days of restricted and enclosed areas. Because of its safety, cleanliness, and smaller heating property, electricity is becoming the standard method. I suppose all building laws the world over require an auxiliary system to avoid the possibility of sudden darkness. I believe a further regulation is necessary. The auxiliary system must be of a different character (gas or sperm oil), so as to proclaim itself as such to the audience or to anyone interested.

This is a system, again, which, by its very publicity could not be allowed to lapse. Taking the audience into his confidence may not be agreeable to the manager who would shirk regulations, but it is a pretty certain check on their evasion. Two systems of electric lighting means, on the other hand,

that one will shortly be discontinued, and who is to discover this until too late. The writer used electricity and gas in a theater which he lately designed, the gas serving for the auxiliary system. As an instance of careless management, it took fully a month of almost daily inspection by the architect before he could enforce its use. There was always some excuse for evasion; but the absence of gaslight, as against the main system of electricity, made detection immediate and sure.

Although placed by competent authorities last (and rightly so) in the list of primary necessities, fireproof construction is still of distinct advantage in the modern theatre. Practice in the best lately constructed buildings has been uniformly excellent, with perhaps one exception. I refer to the use of wooden framing and flooring built upon the iron beams for the steepings of balconies and galleries. Building regulations within the four-mile limit of London prohibit this, and so in perhaps a half-score of the newest metropolitan theatres the iron structure has been reinforced with a system of concrete steepings and risers which for thorough fireproofing and solidity are superb. I have in other pages described this system as used in Wyndham's two theatres, the Apollo and His Majesty's. The advantage of such construction is apparent when contrasted with its counterpart in some of our most celebrated American theatres. Dust, refuse and shavings-filled receptacles their gallery voids usually become; for the building debris invariably finds its way into them. In our day no wood should be tolerated in construction, nor yet in finish nor furnishings. For we know that other buildings are now being constructed without an ounce of inflammable material—then why not the theatre? It is two centuries since Count Algarotti, an Italian theatre critic, in an essay on the opera, wrote that "the best lining for the interior of a theatre is wood."

In some matters we have progressed. That was the view of the artist and musician,—in brief, of the Italian. But a few years later, Saunders, the London

architect, mind you, the experienced practitioner, wrote: "Wood being of all materials the most favorable to sound, should be adopted in a theatre, in preference to every other, not only in the divisions, but in the walls; and even the ceiling should be lined with it." These critics all cited the theatre at Parma, lined entirely with wood, as the most perfect example of acoustic excellence. And Mr. Saunders, in his admirable treatise, which dwelt on acoustics, lighting by candles, decorations and other appointments, not forgetting the coffee room, has not seen fit to advise any regulations for safety, with one exception,—the outward opening of doors. The Aesthetic outweighed all material considerations in those days. Possibly because, strange to relate, theatre fatalities were of proportionately rare occurrence. We have no records compiled prior to 1841. Since that date about 1,200 theatre fires have cost the lives of 12,000 persons, and the proportion is steadily increasing. Proof enough that the modern theatre, as built and managed, needs urgent and radical reform.

Let me emphasize as built *and managed*, for while the architect's responsibility ceases with the properly constructed building, the manager at once assumes that responsibility and must never relax his vigilance.

Yet who ever heard of a theatre manager losing sleep for any other than a question of receipts?

I am not going out of my province when I say that very few managers in this country know what they stand for. And here I want to make a comparison which will make clear some duties. A metropolitan theatre in its relation to its patrons closely resembles a modern ocean liner. The same frail humanity trusts itself within the confines of one as the other, each unit in a sense relinquishing its identity and becoming a part of an unwieldy whole, of which nothing is certain except that it is incapable of any concerted action, and that its safety is utterly in the hands of its keepers. Now compare the discipline, the régime obtaining on a liner with the article which passes for that

sort of thing in our theatres. Would you not rather trust your life in the hands of the commander of the meanest tramp that crosses the Atlantic than to the tender mercies of the most exalted theatre manager in this country? For the commander understands his first care to be the safety of his patrons. After that comes his duty to the company. Not only that, but he undergoes years of special training fitting him for the post. The theatre manager is chosen solely for his capacity to "make it pay." No other standard of fitness is required in the man upon whose watchfulness and resource each day depend the lives of thousands. Such a fact seems incredible in this age of civic reform. The direst need of the modern theatre is a State-regulated management, employees trained and tested for their efficiency, from manager down.

Then perhaps when danger looms, instead of a stampede of boy ushers and a stage manager "wanted," we may find resource and fidelity equal to the late heroism of a Norwegian ship captain and his engineer. I believe it was the "Norge," whose commander was still on the bridge as the ship foundered, and whose chief engineer had just gone down to the engines, and to certain death. So much for the employees. The owners of our theatres come in for criticism by a leading dramatic critic, who says that not commercialism but illiteracy is the curse of the American stage. With that statement I cannot altogether agree.

Theatre managers he characterizes with few exceptions (and there are notable exceptions) as grossly illiterate. Of such a type was the magnate controlling many theatres, who, after seeing a comedy, founded on the "Pickwick Papers," inquired eagerly: "Ain't that piece made from some book?" They told him yes, and that the author was a young man named Charles Dickens, living in Yonkers. "Send him a telegram to come and see me," said he, "I may make a deal with him for another libretto." These are the men who control in a majority of cases all matters theatrical. They build theatres, but the absorbing

question of dollars and cents renders them deaf to all considerations of public safety. Inspection of a recently constructed theatre, disclosed such glaring faults of planning that I questioned the architect, who replied, "My friend, I know the faults and I fought hard to avoid them. But you know my client and that the architect must plan to suit him." In these days of the Trust and the dictator we need architects of the

sides of stage, within the stage, is extremely dangerous. The rooms should be entirely separated by fire walls from the stage proper and have independent stairs and exits. One or two openings with fire doors at stage level would make the necessary connection.

Let us now define in more concise form the present necessities of the Ideal Theatre.

Chief of all are the isolated site and



PROSCENIUM ARCH, BUSH TEMPLE THEATRE.

Chicago, Ill.

Brunelleschi type, the gifted Florentine who, rather than be brow-beaten by the all-powerful Medici tore up the plans in his client's presence and refused to replace them at any price.

One thing I want to emphasize; the Ideal conditions we would have must exist on both sides of the footlights. The actors and stage employees whose duty keeps them in the danger zone must be considered equally with the patrons. This means well-ventilated and sanitary dressing rooms, and with sufficient exits.

The modern method of constructing tier upon tier of rooms on one or both

the simple and generous plan—always recognized as the most vital necessities—these have never been as utterly forgotten as they are to-day. Other points not heretofore covered in the text books, but still imperative, and which modern conditions have imposed, are:

1st. The compulsory use of all exits after every performance.

2d. An increase in the ratio of exit areas to seating capacity, the ratio continually increasing to the final exit.

3d. A safety ventilation system, which of itself shall constitute the patrons' chief protection from stage conflagrations.

4th. A regulation compelling the auxiliary lighting by a different method than the main system, so as to insure detection of its omission.

5th. Education of the management and the public in the truth that "fire-proof construction" is only one short step in the direction of safety, and alone is worthless; yes, and even dangerous in the sense of security which the term seems to, but does not, imply.

6th. The necessity of a check on remiss management by the adoption of safety measures that may be apparent to all and which, therefore, could not easily lapse.

Last and most important as governing all of the above: Legislation—to bring theatre enterprises under the control of special State Boards, who should pass on all plans of buildings and should also institute an examination for all employees, the same being subject to license after proving qualified for their special duties as in other professions where equal responsibility exists.

Such are the material and urgent needs. In many of our popular theatres nothing but the mercy of Providence is saving new disaster. This is not the cry of the alarmist—rather the sober judgment of men who have given time and pains to reach the facts and who see in the utterly inadequate exits, the lack of proper fire protection and the negligent and inefficient management, a standing invitation to a great catastrophe. After each accident comes the wave of indignation and reform. Such reform as the Alderman can administer. No disrespect to the Alderman, mind you, all honor to him in his proper sphere, which, however, is not the scientific regulation of the theatre. The technical requirements are usually beyond him. It may be with the best intentions, but in less than six months he is bartering again with the theatre managers, and a mammoth new inscription—"Vaudeville Theatre"—marks the same danger spot where but yesterday man's reckless cupidity cost 600 lives. With plan revamped, of course, but still with the single entrance and with the same rear wall towering unbroken—a

palisade of death. After all that has passed our ordinances are not improved, conditions in our theatres are hardly better than they were. The ear-marks remain. I can cite one case where the insistence of the dread emergency exit (and the Building Commissioner must obey the letter of the law—he has no other alternative) has materially increased the element of danger.

In Chicago it is a fact that the building ordinance as revised since the late disaster is in important points distinctly inferior to its predecessor.

Take, for instance, two items:

The old ordinance prescribed a theatre building should front on three public places.

The revised ordinance prescribes only two.

The old ordinance called for sprinklers above and below stage.

The revised ordinance does away with them.

In this way the revision legalizes an increased element of danger, for the three public frontages and the sprinkler system on stage, have a well-established value. No matter what specious argument may be used against them, there are authentic cases where sprinklers have extinguished fire on the stage. That being so, who will deny it were better to install 100 sprinkler systems and to damage scenery in 99 useless sprayings, if by so doing, lives might be saved in just one theatre fire. However, statistics show that premature fusing is so rare, it need only be expected in a theatre once every 25 years.

It is worthy our attention that in the same manner that man's greed has violated the first law of humanity it has also played havoc with the artistic ensemble of our theatres.

From the purely aesthetic standpoint their decoration and furnishing may be said to suffer equally by reason of the ultra commercial plan. The box office again has decreed a jammed frontispiece and bulging balcony—an elevation so deformed as to render quite impossible any sound decorative design. More rational planning will evolve structural members amenable to artistic treatment,

and the Ideal interior of course is the one whose detail is subordinate to constructive lines.

In Continental Europe where state aid has eliminated somewhat of the commercial aspect, the circular auditorium, clear of obstructing projections, can be treated from floor to ceiling as a whole. And success has been easier to obtain. With us, the theatre ceiling is a lost art. The funnel-shaped proscenium and the necessity of the gallery god have worked chaos and without a fit ceiling the interior must of necessity fail. Thus abnormal planning has become responsible for meaningless decoration and a weird strife for effect.

It has been truly said that the real courage of the artist lies in his capacity for restraint. May we not add that the greatest use and test of beauty is the measure of its benefit to mankind. The fallacy of art for art's sake is realized again to-day as it was during the lives of the masters of the Renaissance. The "man of four souls" greatest artist of that or any other time, on his death-bed, wrote:

"Here ends love's tender fantasy that made
(I know the error of the thought) great art
My idol and my monarch; now my heart
Perceives how low is each man's longing laid."

Was ever such pathos? Even the great builder of St. Peter's, the master craftsman of the Sistine Frescoes, and of the Pieta must relinquish his idolized art. But do not those matchless works breathe to us of the man's immortal soul. Michael Angelo in the end realized this higher Ideal.

And we who are artisans in that noblest of all the crafts and with us the magnates who control and the public which supports the theatre enterprises, cannot our aims be raised above the petty level of profit taking and the mean necessity of a day? Shall we not rather believe with Carlyle: "In the meanest mortal there lies something nobler. The poor, swearing soldier, hired to be shot, has his 'honor of a soldier' different from drill regulations and the shilling a day. It is not to taste sweet things but to do noble and true things and to vindicate himself under God's Heaven as a god-made man that the poorest son of Adam dimly longs."

The architect must look beyond the gorgeous portal and the shimmering façade; the owner have thought above the dividend.

When we plan with nobler purpose and in method more humane, these loftier Ideals will herald the Renaissance of Theatre Art.

J. E. O. Pridmore.



LIBRARY.

Munich.

Bruno Paul, Architect.

German Arts and Crafts at St. Louis.

The German exhibits in all departments at St. Louis are notable in magnitude and in the manner of their installation. In his introduction to the descriptive catalogue published by the Imperial German Commission, Leo Nachtlicht, architect, Berlin, says that

find himself in the great "Hall of Honor" realizes immediately that here is an exposition of more than commercialism, and the vistas into the outer court and into various connected rooms deepen the impression until one is convinced that Germany has started a



RECEPTION ROOM.

Berlin.

Leo Nachtlicht, Architect.

"the German exhibit of Arts and Crafts in the Varied Industries Building is the largest and best that Germany has ever made," and the reason he says lies "in the better organization and the keener desire to show America what is newest and best in this latest line of German effort, and in the new life that has sprung up in this especial line of art in the last ten years in Germany."

One who has passed the portal to

campaign of education and has installed powerful batteries of art. The clever manner of the installation is to be noted first and then commended.

A visitor coming directly into the German section of the Varied Industries Building from the outer air finds himself depending on the entrance, in either a Great Hall or a wide corridor upon which opened complete rooms, walled and ceiled and furnished in accordance

with their respective uses and character. Nowhere does the structure of the greater enclosing building appear; the multitudinous columns or posts are deftly incorporated in the walls and partitions of the chambers, and the ceilings mask in the crude, cheap, agglomeration of small sticks which, as braced or trussed purlins, support the roof of this

above in the roof; green and white below in the walls, with statues of copper bronze and panels of deep-toned lustrous mosaic. Around and about are the smaller halls and chambers, paneled and ceiled in soft, rich and deep-colored woods, with furniture to match or to contrast. The range of color is from silver gray to rich brown; from the pale



Munich.

OFFICE ROOM.

Richard Riemerschmid, Architect.

as of the other main buildings of the exposition. To enter the German section from out of doors brings charm, to enter it from within brings relief. From the hot sun without or the forest of little white sticks within, one enters the Great Hall under a high pitched roof with dark beams and purlins. The upper panels and the open spaces of the trusses are filled in with effective tracery. Blue and bronze and white appear

whiteness of maple to a deep blue. One passes from a State Hall in which the color scheme is as follows: Mahogany inlaid with ebony maple and ivory; bronze capitals and columns, coats of arms in colored woods; through a room done in poplar, gray-green stained in walls and blue stained in ceiling—to a room of gray stained oak inlaid with colored maple, mahogany and ebony. Each of these rooms is complete in

itself and many are completely furnished. Everywhere the scheme of the design is broad and simple, and everywhere, except now and then in an isolated instance, the rich soft colors and simple forms lure the eye and mind to repose; not to a dull indolent repose but to an inspiring rest. As illustrations in black and white give merely a presentation of the forms and nothing of the charm and spirit of the work, a verbal

lights at proper points in the form of inserts in colored inlay of faience or metals or woods. This idea is very fully and beautifully developed. The softness and richness of the color which has been noted, comes from that innate desire for perfection which is in the artists and artisans. In many instances the wood is not superficially treated, but is impregnated with the dye so that each piece is made uniform in color throughout before



RECEPTION ROOM.

Munich.

Brothers Rank, Architects.

description of the general tendency of design and colors may be attempted.

First of all, perfection is the ideal sought, perfection of craftsmanship in make and finish; perfection of line and proportion in design. The ideal is very nearly approached in not a few instances. Simplicity of form, not crudity, but classic simplicity, is made the basis of the design, and on simplicity of form follows breadth of color treatment. Interest is maintained and the effect heightened by the introduction of high-

it is worked, and the soft, dull finish is the product of simple rubbing. Perfection of line has been mentioned as an element of the ideal. The treatment of line in this display gives a deep sense of satisfaction to one who has watched with feelings of mingled sorrow and dismay the inroads on good taste which the "new art" has been making on the Continent and especially in Germany. But this at St. Louis is not in any sense the "new art." It is, as the catalogue says, the "German Exhibit of Arts and

Crafts," and represents that period of calmness and self-containment which always follows the seemingly, though unfortunately, necessary seasons of strenuousness or of anarchy which themselves follow upon periods of decadence in art and letters. In this, art and letters, but reflect the national ideal. So while some vestiges of the "new art" appear here

It is impossible here to speak specifically of all the exhibits. That certain rooms are singled out for illustration does not mean that certain others are not as interesting and as effective. The color scheme of the Main Exhibition Hall or Hall of Honor has already been noted—the illustration will serve to suggest its form, but in no wise its at-



A COURT.

Darmstadt.

J. M. Olbrich, Architect.

and there, they but enhance the beauty of the newer art in craftsmanship. The work is suggestive of the best of the mediæval art in domestic design. One wonders if the modern work, especially in its color effects, will hold its own with the ages. The mediæval wood has mellowed and deepened with time. A superficial stain will lose its luster, but it may be that the wood chemically dyed and uniformly colored in all its fibres will stand the deteriorating effects of atmosphere and the hours.

The overlapping feathers of the great hammered bronze eagle on the central pedestal are conventionalized in the great window and echoed in the panels of the roof. The stately pylons each surmounted by a bronze figure of Fame are in the best spirit of modern German monumental design. These pylons in connection with the broad arch of the great window forms an impressive introduction to the richness of the exhibition rooms beyond, leading first into the Hall of State, the color scheme



DETAIL OF RECEPTION HALL.

Darmstadt.

J. M. Olbrich, Architect.

of which has also been noted. Beyond the Hall of State and in the axis of the Hall of Honor lie a sunlit court, the main feature of which is the succession of dreamy pools which rise in slightly varying levels to the fountain head whence the water flows from higher to lower levels with musical ripple. The introduction of running water was a distinct and charming feature of the ex-

the Court and its ambulatory, designed six, four of them possessing especial charm; viz.: a Reception Hall in gray stained oak, inlaid with colored maple, mahogany and ebony—a beautiful piece of design; a Living Room with wood work and furniture of silver gray stained oak inlaid, and hand-sewed gray silk tapestries; a Dining Room, the windows of which rise above the pools in the



RECEPTION HALL.

Darmstadt

J. M. Olbrich, Architect.

hibit and numerous chambers contain wall fountains of quaint, pleasing design. The marble wall fountain by Dietsche, sculptor, the basin for running water, a beautiful design in tiling with glass mosaic by Laeuger, architect, the wall fountain of wrought copper gilded by Hoffacker, architect, give evidence of the range of thought and material devoted to this one feature.

About the open court are ranged many attractive rooms, of which Prof. J. M. Olbrich, architect, who designed

Court and the walls of which were paneled in white maple boldly and exquisitely carved—no color being introduced into the carving, but gained from tapestries and curtains; and a Music Room with wood work and furniture done in brown stained pear wood polished, and a piano, masterly in design, of blue stained maple inlaid with mahogany, ebony and ivory. The furniture in all these rooms is interesting in the extreme, simple and dignified, yet sufficiently varied in line and form. The

frieze of Prof. Olbrich's Music Room is simple and very effective.

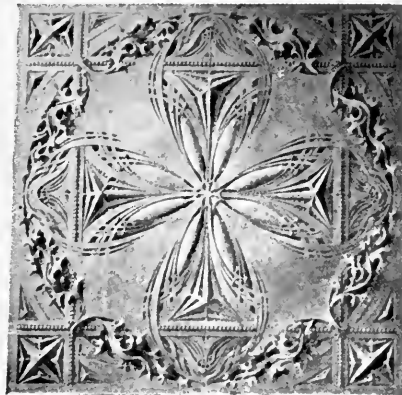
A Living Room with a white lacquered bay window, by Niemeyer and Beitsch; an Office Room gray-green on wall and blue on ceiling by Richard Riemerschmid; a Library in gray stained oak, with ceiling of ash inlaid with mahogany, walnut, ebony, maple and paduk—many woods but simple and beautiful in effect—the room by Bruno Paul; all attract and hold the observer. A Reception Room by the Brothers Rank, arrests the eye and satisfies with its color and furnishings the mind of all beholders; gray stained maple inlaid with maple of different colors forms the decorative scheme while the furniture and the electroliers unite in the general harmony. The electroliers and lamps in these various rooms have received a great amount of thought and study, and some of the forms the illustration will serve to present.

A quaint and attractive Nursery by Arno Koernig and a Gentlemen's Room by Karl Spindler should not be omitted from the list; this latter room with its furniture is in oak all inlaid in natural woods. A first glance would seem to

reveal a broadly painted frieze, but closer inspection shows this frieze to be an inlay marvelous in its display of technical skill.

It is not fair to the other exhibitors to shorten the list, but a full description needs a volume, so beautifully, painstakingly and interestingly has the work been done. So to repeat, one sees in this exhibit more than a display of commercialism. On the confines there are booths containing articles of commerce, but at heart the exhibition is educational in its intention and effect. Surrounding even the art wares of Japan, the other notable foreign exhibitors at the Fair, is an atmosphere of commercialism, a mere display of objects "to sell," and the atmosphere follows the observer even to the gateways of the German section. There one comes into the presence of beauty which ought "to sell," which ought to become general not necessarily in its details but in the beneficence of its effect on the standard of taste. This Germany at the Fair has given us, and neither her artists and craftsmen nor others need ask or be asked to give more.

Irving K. Pond.





GARDEN AND PERGOLA OF THE HOUSE OF MR. CHAS. L. HUTCHINSON.
Lake Geneva, Wisconsin. Shepley, Rutan & Coolidge, Architects.



THE RUSTIC BRIDGE TO THE WOODED ISLAND.

A Jaunt to Wychwood, Geneva Lake, Wis.

THE SUMMER HOME OF MR. CHARLES L. HUTCHINSON.

I arose with the sun, hastily made my toilet, breakfasted, and darted out of the door to catch the early train for the Lake. The air was chill, and well it was, for I needed something to awaken me to a ramble in the woods.

ago, with their semi-Dutch-Colonial-Renaissance elevations. Across the lake, standing out like a sore thumb, is visible at this point a summer home, a large three-story stone building, Renaissance in design, entirely out of keep-



THE HOUSE OF MR. CHAS. L. HUTCHINSON.

Lake Geneva, Wisconsin.

Shepley, Rutan & Coolidge, Architects.

We arrived at the depot at twelve o'clock.

A short drive brought us to the better buildings along the North Shore of the lake—among them the house of L. Z. Leiter, that of N. K. Fairbank, and the Selfridge place—most of them commonplace designs of fifteen to twenty years

ing with the landscape. Soon we come upon the entrance gate to Wychwood, the Hutchinson estate; and at once the keynote of the place is struck. The gate is so simple that one almost feels as though the stones of the road have come together of themselves, rather than by the hand of an architect. The



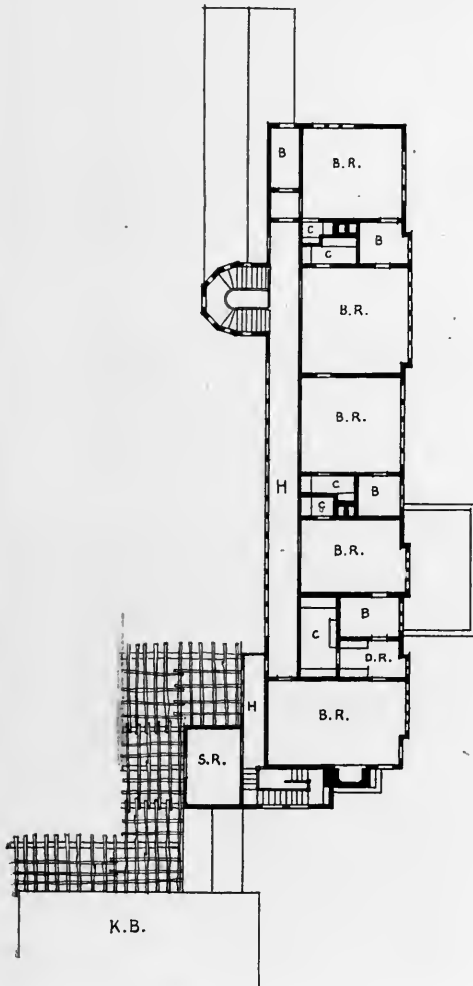
THE HOUSE OF MR. CHAS. L. HUTCHINSON.

Lake Geneva, Wisconsin.

Shepley, Rutan & Coolidge, Architects.

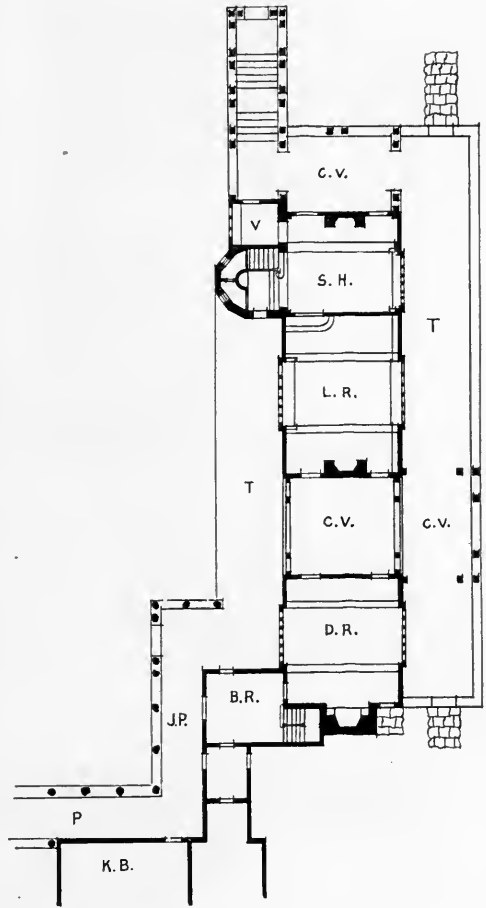
drive from the gate to the house is through a thickly wooded land, gradually falling off to the lake two hundred feet below.

As one approaches the house one gets no impression of aggressive architectural prominence; it seems to grow with the trees. Nature and Art have come together, nature always dictating, however. There is no copying of a design from another place; the individual character of the plot has always been kept sight of; the real, homely beauty characteristic of the locality is preserved. The steps from the carriage court to the upper level illustrate



SECOND FLOOR PLAN.

House of Mr. Chas. L. Hutchinson.



FIRST FLOOR PLAN.

House of Mr. Chas. L. Hutchinson.

what I mean by the preservation of the homely beauty of the surroundings. There is no filling in and grading—steps are necessary to a higher level, and they are placed where they are required—to join the carriage court with the vestibule. From there one enters a large hall 20 by 25 feet; down two steps is the living room, 23 by 33 feet; at one end a large fireplace, simple as can be, of brick with wooden trimmings. Connecting the living room with the dining room is a covered veranda, a beautiful place for an out-of-doors dining room in the pleasant summer months.

The dining room has a beamed ceiling of heavy timbers; at one end is a large



THE STABLE.



DRIVE FROM THE HIGH ROAD TO THE HOUSE.

fireplace. The grouping of the several departments for convenience in working is admirable, and for the perfect use and enjoyment of the various parts, as the entertaining rooms, kitchen, offices, laundry, outbuildings, and stable, all of which have the proper relations to one another and to the garden and pleasure grounds. The laundry and kitchen blocks are practically isolated blocks, for they are connected to the dining room only through the butler's room on the first floor, being detached above.

On the second floor are several large retiring apartments, each with its separate bath, commodious closets and dressing rooms. All along the north side of the house extends a corridor connecting the different rooms. Every room in the building has its proper aspect. To the south the sleeping rooms, and the north the stair hall and corridors.

The views from the house across the garden, over the lake and on to the wooded higher ground in the distance,



THE BIRD BATH.



THE KITCHEN COURT, FROM THE PERGOLA.

form settings which are quite enchanting. Every opportunity was taken to make—may I say?—picture windows. Why not? They are windows, and they are, above all, pictures, pictures such as no artist may paint, for he is limited to the effects of an instant; here you have an ever-changing landscape.

All the sills to the windows on the first floor are kept low for window gardens, because on the outside, in front of each window, is a bed of flowers which

are simple, and in harmony with the settings. When you go from the first floor to the second you know you are in an entirely different department, for the decorations tell you so. All of the retiring apartments are daintily furnished. The wood-work of these rooms is white, with wall decorations in harmony.

The hall directly in the back of the retiring rooms is more in accord with the entertaining apartments on the first



THE WATER PAVILION FROM THE WOODED ISLAND.



CEDAR ISLAND AND ITS REFLECTIONS AS SEEN FROM WATER PAVILION.

rise above the sills, forming a beautiful foreground to the distant landscapes. Windows were placed where windows are needed. Bays jot out where they are wanted. In Mrs. Hutchinson's room the Western wall is pierced, as though to catch a last glimpse of the setting sun.

The utmost simplicity throughout in plan and decoration is the secret of its pleasing effect. Chestnut brown wood-work, with greens in some places; in others the natural color of the plaster with the brown wood give a low-tone, quiet effect. Here and there on the walls hand Dutch beaten metal work; some of the pieces are in service in the vestibule as coat-hooks. In the living room grate is a set of beautiful Gothic statuette andirons. The furnishings

floor, as planned; it is the connecting link between them, and forms a rather pleasing transition. Everywhere you see a perfect adjustment of the several parts, an expression of homely fitness and relation to the life we live—everywhere an endeavor to serve the needs of the occupants.

We have seen a goodly interior; let us go out of doors. The house is well located at a level quite a bit above the lake, thereby increasing the beauty of the prospect.

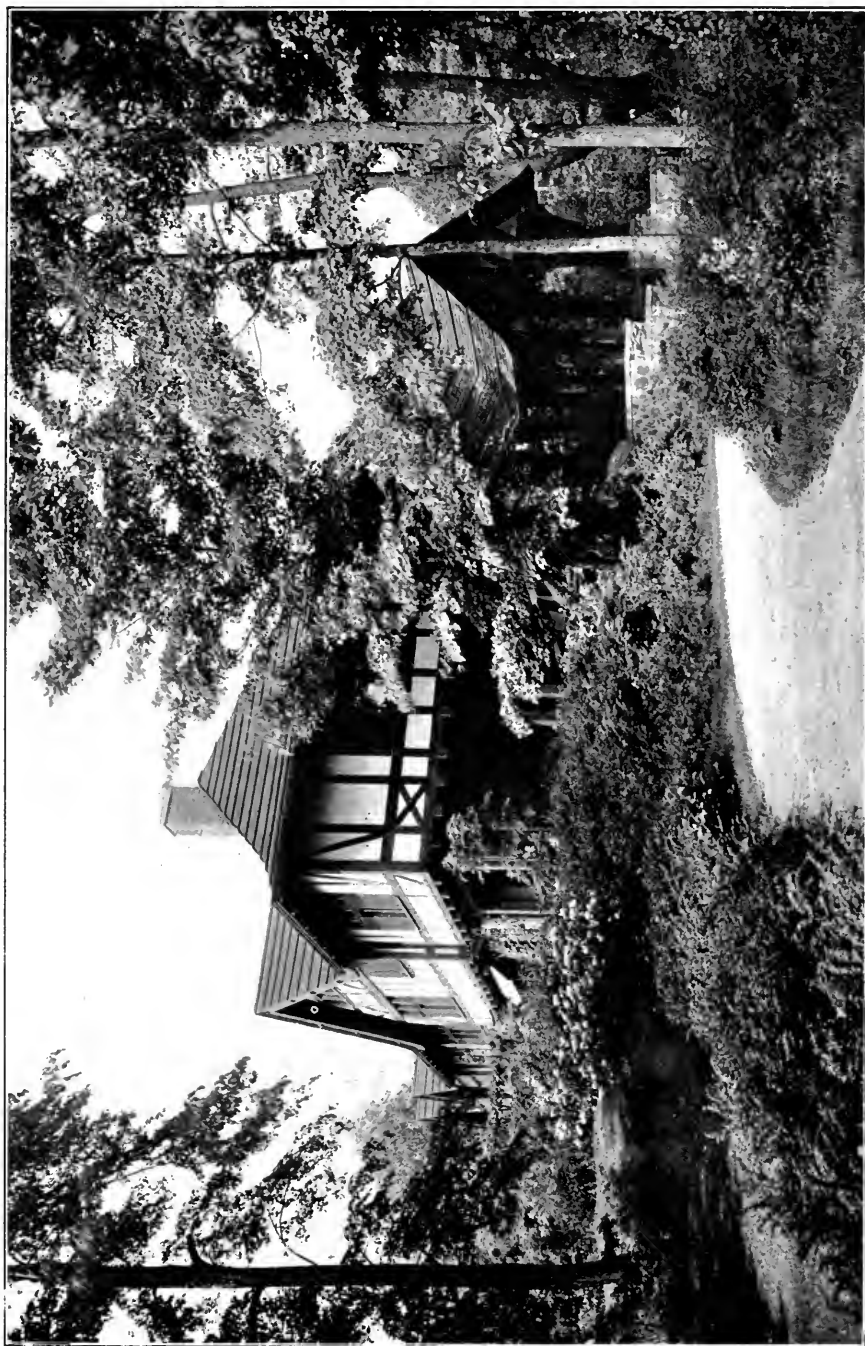
It is somewhat difficult to assign the design to any special school. However, one feels strongly the influence of English half-timbered work, and in the stairway turret and dormers, with their trefoiled verge boards, of the French. One regrets somewhat that every piece



THE HOUSE OF MR. CHAS. L. HUTCHINSON.

Lake Geneva, Wisconsin.

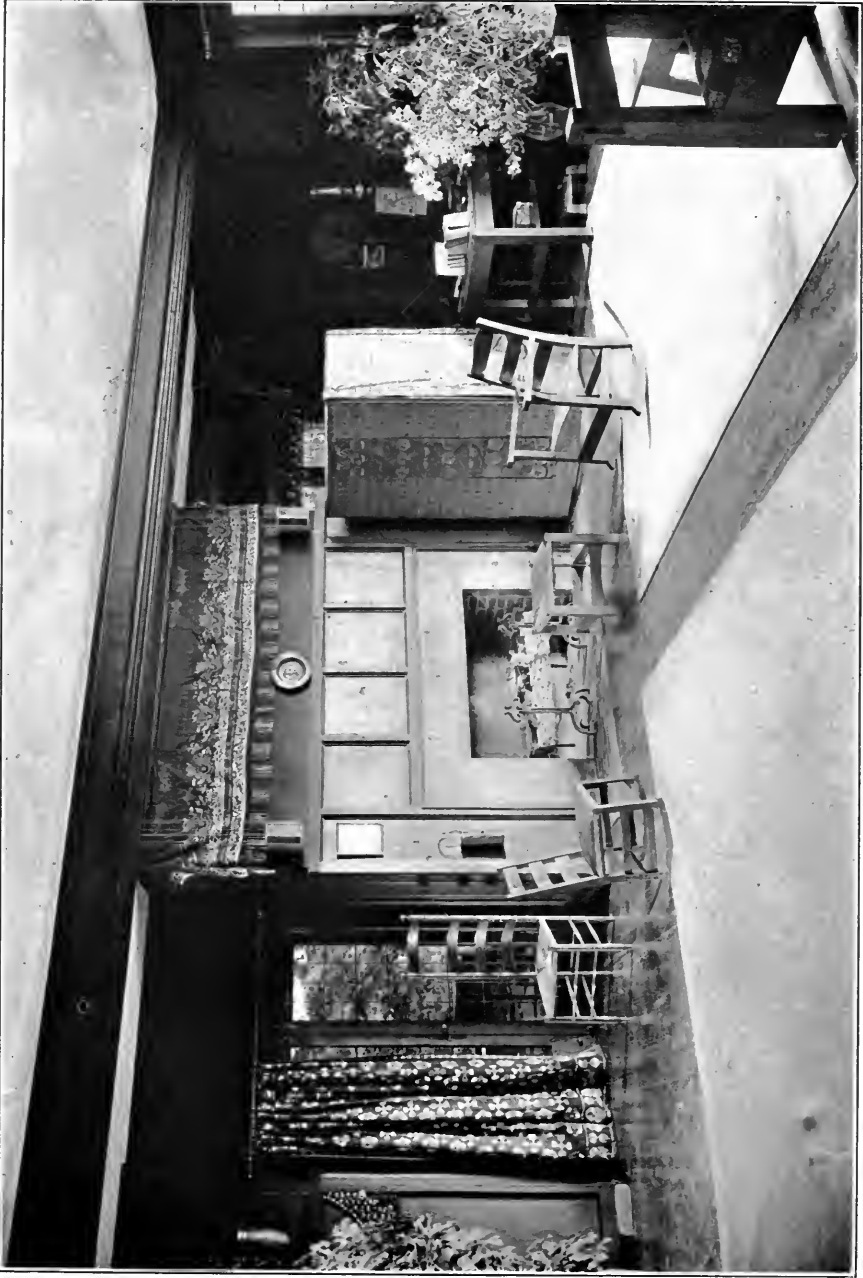
Shepley, Rutan & Coolidge, Architects.



THE HOUSE OF MR. CHAS. L. HUTCHINSON.

Lake Geneva, Wisconsin.

Shepley, Rutan & Coolidge, Architects.



Lake Geneva, Wisconsin.
LIVING-ROOM IN THE HOUSE OF MR. CHAS. L. HUTCHINSON.
Shepley, Rutan & Coolidge, Architects.

of timber is not truly constructional; however, those which are give the key to the scale, and you do not feel that some are merely decorative. In fact, I think this legitimate, since the methods of construction of the 14th and 15th century half-timbered work are impractical in our extreme temperature where the swell and contraction of the timber make it impossible to keep out the weather. If the timbers are not all con-

roof, of goodly proportions, is of the same color as the timber work of the walls.

The windows are an example of what might be done to give ample light to the interior, yet not destroy the exterior effect by punching so many holes in the walls, for in no case, except the lower lights of the windows of the hall, living and dining rooms, was plain plate-glass used. In all other cases they are broken



THE HOUSE OF MR. CHAS. L. HUTCHINSON, FROM THE LAKE.

Lake Geneva, Wisconsin.

Shepley, Rutan & Coolidge, Architects.

structional, they are at least solid; you see no building up of $\frac{3}{4}$ -inch boards tacked together to get the solid effect. All wood-work is rough-sawed, giving a good surface for the stain, which is a rich chestnut brown, with a silvery grey for the plaster. Here, as in the interior, everything takes on a common character. The materials used are simply wood, plaster and stone. The stone is used sparingly, and for the porch and garden walls is not visible, reducing the palette to two materials—a chestnut brown wood and a silvery grey plaster. The

up into small divisions, thereby tying the timbers from one end to the other together, and making a decorative feature of what might otherwise be an ugly gap. It is just such materials as plate-glass which take away the domestic effect which our houses should have. A State Street plate-glass show window in a residence! Never do it—for it takes away from the true character of the house; it destroys the scale.

The gardens are treated in the simplest and most direct manner, no attempt being made to imitate the willful-

ness or wildness of the surrounding nature. It looks like a thing never seen except near a house, making a beautiful foreground to the landscape as seen from the house, and a base and setting for the house when viewed from the lake. All along the water's edge, directly in front of the house and garden, is a bed of wild roses, which fades away into the natural surroundings.

The shore line is very interesting. At the East is a wooded island, reached by a rustic bridge of timbers, felled upon the ground. On the island a rustic water pavilion catches the eye, from which Cedar Point and its charming reflection in the water can be seen.

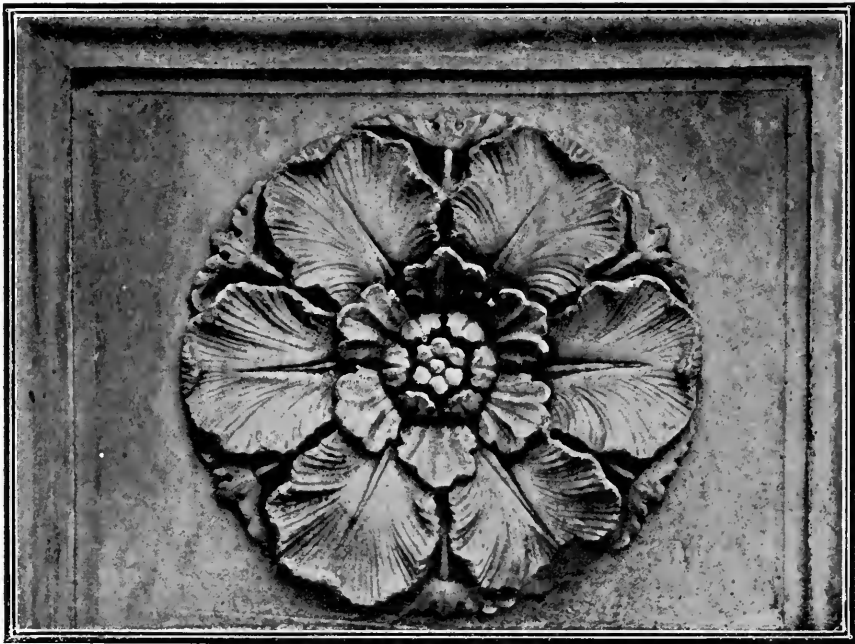
All of the outbuildings are to the northwest, located in the very woods; further north, in a veritable wilderness, are the greenhouse, wood shed and catch-all.

I have said all I can of this beautiful spot. For the rest, I must let the illustrations speak for themselves. The small views are from photographs taken by Mrs. Hutchinson. Her subjects, "The Fallen Linden," "Bird Bath," and many others I think highly interesting.

The "handy wagon" shows the way in which they cart the timbers to build their pergolas and rustic effects of all kinds. Everything seems so close to nature, and to visit such places makes one feel as Richard Hovey felt when he wrote the lines entitled "Spring":

"I said to my heart, I am sick of four walls
And a ceiling.
I have need of the sky;
I have business with the grass.
I will up and get away where the hawk is
wheeling.
Lone and high;
And the slow clouds go by.
I will get me away to the waters that glass
The clouds as they pass;
I will get me away to the woods."

John Baptiste Fischer.



The Architect in Recent Fiction

In times past the architect has never apparently been a professional man of sufficiently marked social importance or distinction to figure prominently in the novel. English fiction would be emasculated in case the doctor, the barrister or the clergyman, each clad in the full panoply of his professional position, were omitted. It would even be very much impoverished in case the novelist had been deprived of the wayward and Bohemian artist, as a source of contrast to the respectable business and professional man. But the architect, who is or should be, at once the artist, the professional and the business man, might be cut out of English fiction without the loss of anything of much value. At the moment we cannot recall any character of importance who was described as an architect, except Mr. Pecksniff, and the peculiar qualities for which that gentleman is famous can hardly be attributed to his professional practice or training. The architect appears as the real estate agent might appear—merely as a piece of social or business machinery, which must be lugged in when in the course of imaginary events there is a house to be built. The very combination of artistic, business and professional standards which he represented appeared to rob his personality and his social relations of anything distinctive.

The contemporary English novel is, so far as I know, as little interested in the architect as the classic English novel; but the contemporary American novel has in this respect found new light. There are a number of American novelists to-day who are seeking with varying degrees of success to construct out of their stories a significant comment on American social life. They find more interesting material for fiction in the Boss, the Big Business Man, the Reformer, and the other new Americans than they do in the cleric, the lawyer or the physician; and among the new men which these writers are trying to un-

derstand the architect occupies a respectable, although by no means a dominant, position. At least three novels, all published within the past few years, contain architects among their leading characters; and, what is more to the point, the fact that these characters are supposed to be architects has a decisive bearing either upon the kind of men they are or upon the course of the tale or upon both. This fact is surely a tribute to the position which the American architect has won. He has become a social fact, not quite as conspicuous as the sky-scrapers he sometimes rears, but of such prominence and interest to demand an accounting on the part of our social auditors.

The three recent American novels in which the architect has been recognized as some sort of a social fact, are Edith Wharton's "Sanctuary," Robert Grant's "Unleavened Bread," and Robert Herrick's "The Common Lot." These three writers differ as much as possible in technical methods and in their vision of human nature; but they are all of them seriously interested in modern American city life. Their use of similar material has tempted all of them to seize upon the architect for subject matter, while at the same time their difference in point of view makes the seizures result in very different pictures.

The intrusion of the architect in Mrs. Wharton's pages is, indeed, more or less accidental. Mrs. Wharton's point of view is psychological rather than social; and the appearance of the architect as a conspicuous social fact would not of itself arouse much of her intellectual interest. She does not introduce an architect into her story because he is looming large on the social horizon, but merely as a matter of mechanical convenience. At the same time, the fact that it was mechanically convenient for her to send her heroine's son to the Beaux Arts, and to make him read the Architectural Record (the illustrator

has placed a copy of the magazine on his table), testifies to the occurrence of the architect in American life, if to nothing else. It should be added that the situation upon which the culmination of the story turns is suggested by an architectural incident. The professional career and the personal happiness of the young architect both seem to turn upon the winning of a certain competition, and he is sorely tempted to ensure his success by using as his own the superior plans of a dead friend, who had passed these plans on to him to use as he pleased. This situation has little professional interest, and is not intended to have. Mrs. Wharton merely needed to put the architect to a test so as to see whether the vicious temper of his father or the moral influence of his mother would predominate; and the fact that the moral influence of his mother finally conquered, suggests that Mrs. Wharton's imitation of Henry James, of which so much is made, is only superficial. Her longer stories are much more likely to fulfill a moral purpose than are Mr. James'. She shows her fundamental independence by being morally more explicit.

The explicitness of Mrs. Wharton's moral purpose is, however, nothing to that of Mr. Herrick's. I recommend all architects to read his story who feel that the world is too much with them. They will find in it an awful example of the demoralizing effect upon a western architect of worldly ambition. The hero of the "Common Lot," who is also a graduate of the *Ecole des Beaux Arts*, craves immediate social and pecuniary success, and in order to obtain it, designs anything which will sell. As one of his clients is a dishonest contractor, he finally sells him dishonest drawings, among which are the plans of a hotel which is built in flagrant violation of the law. It is nothing but a fire-trap, and when it burns down in the presence of its designer, the guilty architect is overcome. He sees finally the error of his way, abandons his worldly ambitions, takes a position in a large office, in which his personal work is merged in that of the firm, and so accepts what

Mr. Herrick calls the "Common Lot." The story is conceived and told with sincerity; but I do not find it very interesting or important. It may be considered either as a special instance of moral turpitude, which has little or no bearing upon the conditions under which architects work in this country, or it may be considered as the sort of thing into which a good many architects are tempted and which is in this instance exaggerated for the sake of legitimate effect. In so far as it is merely a special instance, the moral is just the old and respectable one that a man may not with impunity pursue the primrose path, and while I do not dispute that moral, it is a matter for dissertation rather in clerical homilies than in architectural magazines. On the other hand, in so far as his special instance is supposed to represent prevailing conditions, I do not believe that Mr. Herrick has hit off any very significant truth. A popular architect is doubtless obliged to make a good many compromises with the world; but a high standard of technical integrity has not proved to be incompatible with success in American architecture. The American architect has a right to his place in the world of American life, and will lose much more than he gains by remaining content with the common lot of obscurity. Recognition is the breath of an artist's life. A moral martyr may look for his reward in the approval of the Higher Powers; but the artist who has produced no effect upon his fellow men is a barren artist. And the architect is in this respect a thorough artist. Good American architecture must bring reputation and reward to its makers, or else the American buildings as well as American architects will belong to the "Common Lot."

The architect in Mr. Robert Grant's "Unleavened Bread" is a much more modern and interesting instance. He had, indeed, his troubles with the world, as represented by rich, importunate and ignorant clients, but his worst troubles issue from a troublesome wife. He did not marry a moral paragon, as did Mr. Herrick's hero, but a lady who embodies in a spicy form the old Ameri-

can spirit. Selma believes with all her insistent soul that in a democracy the only qualifications which a specialist needs for his special tasks are untutored enthusiasm, common sense, and a keen eye for the main chance. She stands for the obvious, the practical, the regular and the remunerative thing. The easy critical and personal banter in which her husband's associates pass their hours of social leisure, strikes her earnest intelligence as frivolous; and when her husband throws up a lucrative job because the wife of a client imposes impossible conditions, she stamps him as a weak and ineffective man. It is the old mid-century American point of view of immediate practical achievement at any cost reappearing at a time, when the conditions which gave it vitality and propriety no longer exist. At the same time the reincarnation of this point of view in the jealous and narrow soul of a mercenary and ambitious woman gives the social lesson an individual rendering which makes it vivid without any loss of general significance. Selma White is a very disagreeable but a very convincing character, and she represents the tradition which is the worst enemy of American architecture in American life—the tradition which resents exclusive technical standards and refuses to trust the men who by their thorough training

have earned the right authoritatively to represent such standards. It is this tradition which makes so many Americans consider an architect as merely an agent whose business it is to carry out their ignorant ideas, and it is this tradition which gives virtue to the words of a man like Joe Cannon, when he vituperates against the insolent self-assertion of trained architects. It is very much alive to-day, and it was a touch of rare insight on the part of Mr. Grant to individualize it in a form which betrays its real contemporary significance. At the same time, I have some sympathy with Selma White in her attitude towards her architect of a husband. She felt the lack in him of the impulse derived from a well-domesticated tradition which would free his hands and make him build better than he knew, and the lack, which she felt and for which she condemned him, amounted to a genuine and a serious deficiency. Of course, it was not his fault, poor man. A man can acquire training and experience; but a tradition, like a gift, must be given. At the end of another thirty years, perhaps, the American architects will have a sound and popular local tradition given to them by the generation of practitioners who are now struggling along without it.

Herbert Croly.



FIG 1. THE LOGGIA DEGLI OSL.

Milan, Italy.

NOTES & QUERIES.

THE LOGGIA DEGLI OSII.

The two-story open Loggia in Milan, known to us all as a badly modernized building and as the Loggia degli Osii, has been restored just now and to all appearances appropriated to the business of a mercantile firm. This appropriation of the old building we may regret sincerely, but a letter from an observer and life-long student of such matters, Mr. John Safford Fiske, of Costa Lupara, states that the restoration has been conducted with great care and reserve, and that, in short, no better work could be done in the way of putting an old building into complete repair. The photograph which we publish seems to confirm this opinion.

George Edmund Street, in his book on Italian brick and marble, gives a cut of it as he saw it in 1857, and when I saw it in 1860 it was in that same much altered form. In 1882 it was in even more forlorn condition, for it had been more or less cleaned up and made to look new and fresh, in accordance with the comparative elegance of modern Milan. Street's cut is not very accurate as a drawing of what he saw so long ago—that will be evident if any one considers the curve of the arches, and the bold assertion made in the drawing that they increase in width of archivolt much more than they really do—increase very notably toward the point—as, indeed, is rather customary in thirteenth century Lombard architecture. But he shows rightly how the delicate columns had been replaced by square piers, the upper Loggia built up with brick walls and two rows of windows; and nothing left in place and unaltered except the front of the parapet with the projecting ringhiera. All this is now in a condition so very fair and so completely of the artistic epoch, that he would be a severe and a minutely informed critic who would detect discrepancies in its authenticity. As for the smaller details, one does not readily commit himself, on the authority of the photograph alone.

Street seems to have thought that the hood over the ringhiera was put on gable-wise, and he also seems to have fancied that there was ancient authority for a little scrap of gable at the top of the building and exactly

in the middle. No authorities readily accessible seem to help us in the question whether all parts of the restoration were fully justified; but the general result as of an extremely vigorous, consistent design of about 1240 may be accepted without reserve. It appears that this building is all that was left at the beginning of the nineteenth century, of a great group of buildings erected by the City of Milan for its state officers and the business of the state. This double arcade was, of course, the glorification of the ringhiera, the magnificent architectural setting devised for that balcony from which decisions of the council were read to the people, or the popular opinion on certain matters publicly demanded. All this was of the time before the absolute tyranny of the Visconti under Gian Galeazzo, although there had long been a mighty influence of the Visconti family in all the affairs of the citizens of Milan. The ringhiera bears two escutcheons with the crowned viper of that family, flanking what may be an imperial eagle. Gselfels, who is a most careful student, although writing in simple guide-book form, speaks of the eagle as the arms of a member of this Galeazzo family as late as 1466, and he would seem to assume that those shields were put up in the fifteenth century; but the acceptance of them by the restorer militates against that view of the case; at all events that interesting question is left to us to solve—whether those escutcheons were assumed by the artists now in charge of the building to be of the thirteenth century. The question as to their sculptural treatment could only be answered by very minute examination, for heraldic sculpture has always had a formal indifference of its own, peculiarly hostile to artistic inquiry.

R. S.

THE REVERSE OF THE BROAD EXCHANGE BUILDING.

It does not imply any reproach to the designer of the front, seen in our Figure 2, if we insist upon this point, that the rear of that same building is fully as attractive, and that Broadway would be even more interesting if it were built up in that



FIG. 2. NOS. 26-42 BROADWAY—THE FRONT.

New York City.

simple, inexpensive, unpretending, tranquil fashion. This building up with plain brick-work and with no ornamentation allowed but patches of color, a row of dentils or corbels under a sill-course, a pierced parapet, and such like simple devices to get light and shade as well as color—such a reconstruction of our great streets could have none but a beneficial result. See, now, how the young artist in architectural forms is hampered by the supposed necessity of doing the big and ponderous thing with very costly reveals and soffits of cut granite, all of which, however, form no part at all of a structural building—all of which are mere reminiscences of a time when buildings were really built of stone. Now they are built of steel, and the laws require you to hide that steel—that is, to protect it from heat and therefore from sight. In this the laws act as a direct discouragement to novelty, to freshness, to originality of design. But if we were to say to one another that, indeed, it was not worth while to jacket our steel frame-work with such a pretentious and unmeaning mass of heavy material, and that what we had to do was to make that jacket as light and as slight as might be, we might come back to the thought suggested in the January number, pp. 65, 67, and leave our buildings as plain as might be—as plain as those in our Figure 4—until such time as a definite and reasonable, a logical system of design might suggest itself.

Now it happens that we have in the southern aspect of the "Broad Exchange Building," that immense skyscraper from the fourteenth story of which the photographs mentioned in the next note were made, an aspect which is wonderfully attractive. It is shown in Figure 3, as it appears from just above the level of the sidewalk at the corner of Broad street and Beaver street. Here are sides and ends of a building which could never be "façades" in the architectural sense, as they front on no street or public place; but, as they tower high above the five-story buildings of forty years ago, and as it is well down town for the building in that particular location where skyscrapers are less certain to rise within a year or two than they would be a little further west, so it has been thought worth while to adorn these surfaces which we are loath to call fronts, in a more decided way. Or, indeed, if no such pecuniary consideration would have weighed with the owners, all the more credit to them, for indeed the treatment of these towering masses rising high above the older buildings about, offers an opportunity for good architectural effect; and they would be terribly disfiguring to the city if left in

raw, bare piles without "treatment" of any kind. It was not thought practicable to diminish by one degree the amount of daylight for the windows on the central courtyard; for who can say when that courtyard will be enclosed on this, its southern side. This practical consideration has prevented the making of a design consistent throughout.

Here in this building the pierced parapets are in their glory. There never were better examples of that interesting feature. The letting of the light sky into the dark of the walls, the invading of the light sky by the dark of the parapet, are motives of never-failing charm. And that which has been done so well at the top is echoed below by a decent treatment of brick in two colors, yellow and red—in which treatment, indeed, there are solecisms, as one might say, for there are three very different programmes put up side by side and with less than a perfect harmony between them. The reference is, of course, to the broad masses of yellow brick above separated only by pilasters, as it were, of red; a story of narrow bands in alternating color below; and below this again a system of panels between windows taken vertically in which each panel has its separate frame of light brick echoing the sill above and the lintel below. The three schemes are not wholly pleasing when seen this way in sharp contrast; and one turns with some relief to the narrow front seen on the left where the return is from the Broad street façade.

But, indeed, it is hypercritical to find any fault with this interesting mass. Its disposition follows from its plan, and its plan comes from the accidents of ownership and the need to occupy every inch of this precious plot of ground. But is it not an entertaining piece of work? And would it not be a good thing if a number of the young architects would turn their attention to such methods of design as these and try them on Broadway?

R. S.

**THE
REAR VIEW
OF
BROADWAY
SKY-
SCRAPERS.**

It is an old story that the plainest designs are the best, among our presumptuous and over-weening street fronts. One claims no credit for re-asserting that almost self-evident truth. But sometimes a new demonstration of it may be useful; and certainly it is sometimes irresistible. I was in the "Broad Exchange Building" and looking out of its westerly windows, and I saw the extraordinary group



FIG. 4. NOS. 26-42 BROADWAY—THE REAR.

New York City.



FIG. 3. THE REAR OF THE BROAD-EXCHANGE BUILDING.

Broad Street and Exchange Place, New York City.

Clinton & Russell, Architects.

which is shown in Figure 4. The building on the right, which is the nearest, with its two great pavilions separated by an open court as wide as each of them, is a little faulty in that very fact that the horizontal dimensions are too nearly equal. But it is more interesting as a pair of fronts than it would be as a single flat façade, and the grouping gives to the monotonous street of lower New York a really delightful bit of picturesque effect with interesting shadows and shaded sides illumined by reflected light. Moreover, it is most pleasantly striped and banded with yellow bricks with a general background of red, the yellow bricks, indeed, making the quoins as well as the horizontal bands and coming very near in color to the sills and lintels. The building next door is more commonplace in its very decorative-ness, for the designer has tried to put in some street architecture in the way of a sill-course of terra-cotta rather elaborately adorned with relief patterns, and, as this sill-course forms the top of the basement or ground story, he has repeated it in a way by a very simple entablature above what we may call the *entre-sol*. This is very good and simple decoration, and there is certainly no fault to be found with the repetition of that entablature at the sixth and the tenth floors, and the culmination of the conservative treatment by the heavier entablature above, which includes a whole story of windows in its frieze. Undoubtedly we shall like the double building on the right better. It is in that way that we must hope to see designing done in our city streets; but the little bits of convention seen in the narrow building are interesting, too. The broad skyscraper farthest on the left of the three high buildings is so very plain in its treatment that one becomes a little impatient at the appearance of that broad, blank course six stories below the top. It may have some reason for being, connected with its Broadway front, and as this brings up the question of the Broadway front, let us look at it. Here it is in Figure 2. The building on the left is No. 42 Broadway, and the two interesting pavilions that we saw in Figure 4 form the rear of that building—that is to say, they form its front on New street which is, indeed, the rear of that building of which the Broadway façade forms the front. Then the narrow front is No. 36 Broadway, called the Hudson Building; and the great mass on the right is so much of the Standard Oil Building, No. 26 Broadway. To the reader who is not familiar with New York numbering of houses, it may be well to state that these numbers were fixed when lower Broadway was built up with small dwelling houses

and that the numbers from 26 to 42, inclusive, were really utilized in that epoch of the middle ages, each number for its own house. It is not the fault of our slow-moving City Fathers that business has caught up with the numbers and absorbed many in one.

But as to the New Street front—I do mean in all seriousness that if that one which belongs to No. 42 Broadway had a pierced parapet at top—something to make it a little less ponderous at the level of the roof—it would be a really typical front for a skyscraper. In that way, and not otherwise, should we proceed.

R. S.

MOULDED

JAMBS

AGAIN.

From the January number, p. 70, we shall have to return to the 8-inch reveal! No one who loves to build in bricks can refuse himself that satisfaction. Fig. 10 shows how, we provide for an 8-inch reveal even in a 12-inch wall; we simply let the window-box stick out a little from the inner face of the wall, trusting to the 4-inch rebate to hold it strongly, and to the furring to cover its 2-inch projection. And this, I suppose, is a common device. In practice it has proved sufficient, even with the old hollow box-frame, as shown in Fig. 10, and of course with a solid frame and swinging or rotating casement windows the difficulty disappears. This 8-inch reveal, then, can be treated by the methods shown in Fig. 1, in Fig. 2 (January number), or another of those simple little plans.

But the builder of a contemporary business building will say that he needs the extra space within—that every inch counts, and that because of this he must be satisfied with his 4-inch reveal on this account. *Non sequitur*. There are two ways out of every difficulty—two ways at least—two ways to be tried even if neither one of them proves satisfactory. In the present case there is a way which will be satisfactory in nine cases out of ten. Fig. 11 shows how a projecting window-casing may be built with a 4-inch offset from the face of the wall, and how in this way an 8-inch reveal may be had with any width of upright. If now, we build this 8-inch reveal with the mouldings shown in Fig. 2 and shown at work in Fig. 5 (January number), the resulting window-casing will be good; but then there is, of course, the added expense of facing a 4-inch projection of the stone lintel along the top and at the two ends. Fig. 12 shows a perhaps unreasonably elaborate form; the lintel might equally well be cut as long as the width

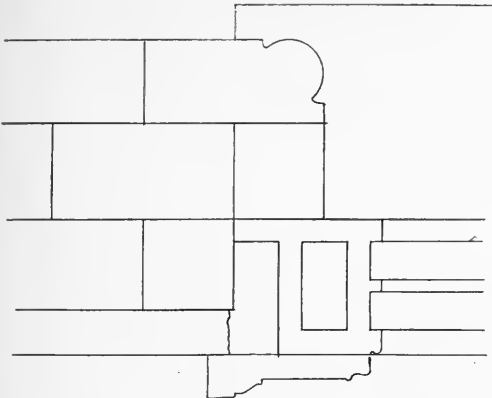


FIG. 10.

across the window from out to out of the brick casing and no more. It may or may not be worth while to make that 4-inch projection, to incur that added expense, for the sake of the slight additional space gained within. As to that, each separate case will

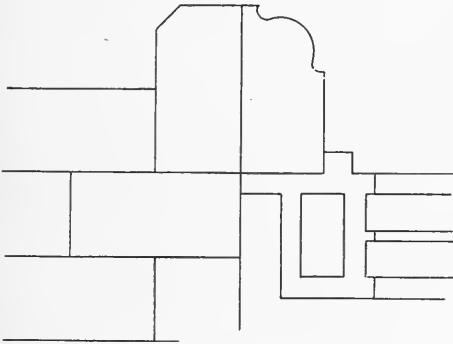


FIG. 11.

be decided by itself, but assuredly the flush lintel and the smooth wall shown in Fig. 5 is an arrangement fully as effective as the

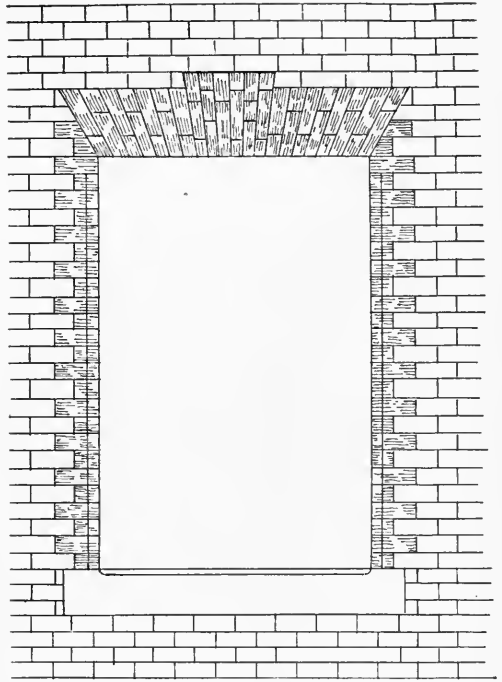


FIG. 13.

more expensive treatment shown in Figs. 11 and 12.

There is, however, one course open which will often prove irresistibly attractive. I mean the treating of the window-cases with long-and-short quoins of brick-work made to contrast with the wall-surface. If you will use the thinner bricks, those which run about eight courses to five of the common size, you may make the quoins of either sort, and the wall-facing of either sort, so they contrast aright; or you may use color only and contrast yellow quoins and flat-arch with dark-red facing, see Fig. 13. Or, again, you may employ a device which is more familiar nowadays than it has ever

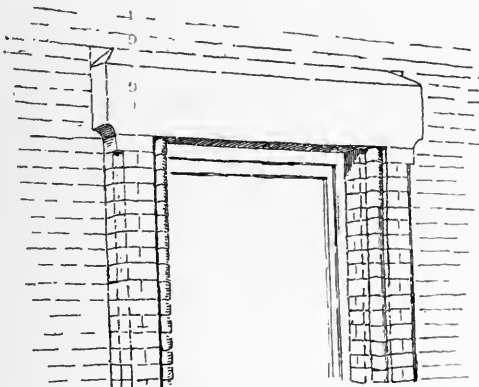


FIG. 12.

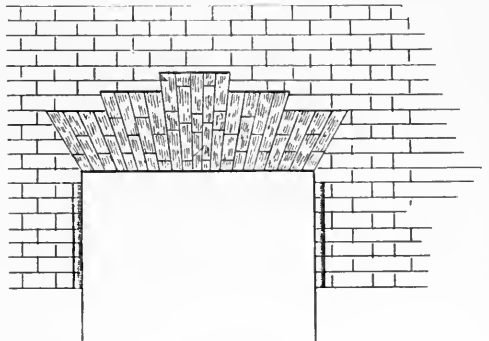


FIG. 14.

been before, that of building the deep arch with flat intrados and long voussoirs of bricks, not necessarily gauged; see Fig. 15, where the moulded jamb and lintel correspond, are of the same section at the corner, and not as in Figs. 13 and 14, where the jamb only is moulded and this moulding is stopped at the uppermost quoin. This style of work has been used by Henry Rutgers Marshall, in the interesting Bryn Mawr

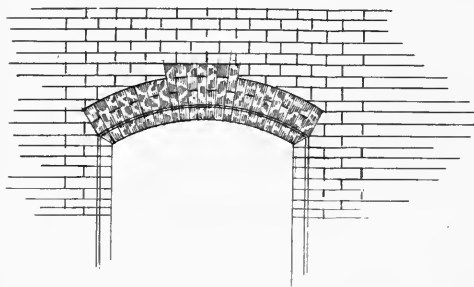


FIG. 15.

School building, and in that admirable hospital in Livingston place, New York, not long ago destroyed. It occurs in the work of McKim, Mead & White, as in the clubhouse on Park avenue—the Deutscher Verein—and in great perfection in the house-front, No. 25 West 36th Street.

THE ART ASCETIC.

The people of New York, or, at any rate, a small but influential fraction thereof, have of late been very much excited on the subject of the advertisements displayed in the stations of the new Subway. A vehement protest was raised at the way in which the small still voice of the station architecture was drowned in the din of the noisy signs. Just what the outcome of the protest will be does not appear at this writing; but it looks as if in the end the Interborough Company would be compelled to moderate somewhat the loud advertising display originally proposed; and some such moderation is desirable in the interest of architectural propriety. At the same time, New York cannot altogether be congratulated on the disposition shown by her æsthetic enthusiasts. That advertising signs placed in a subway station should be subordinated to a carefully prepared architectural design is not to be questioned; but I am ready to question with complete effrontery the assertion that the instalment of any adver-

tisements at all in this or other subway stations is a species of æsthetic and civic defilement. It is nothing of the sort. The use of display advertisements in public places properly regulated, as it is in Paris, adds enormously to the lively, the picturesque and the racy quality which is appropriate to the squares and thoroughfares upon which people congregate. People are interested in such advertisements just as they are interested in the shop windows. They are part of the natural and desirable scenery of a public place; and the notion of banishing them entirely either from the streets or from the city subway stations issues from a false ideal of æsthetic purism. The trouble with the existing subway stations is that the architect was not asked to design them with a view to the display of a certain number of advertising signs. The consequence is that the architecture contains no definite place for them, just as the architecture of a "swell" room might contain a panel especially prepared to receive tapestry. But even though there are no panels designed for advertising in the subway stations, those stations may be made distinctly more interesting when the waste of white tiles is watered with a certain number of signs regulated to a certain size.

I have said that a false ideal of æsthetic purism lies behind the notion that display advertising defiles places of popular assembly. Many civic art reformers have an extraordinary and baleful idea that in order to make something beautiful you must divorce from every trace of vulgar popular association, and as long as this artistic asceticism prevails the so-called civic art movement will absolutely fail to awaken lively popular interest or to correct the popular taste. Of course I do not mean that advertising signs should be plastered on the sides of public buildings, or that any compromises should be made in the design and decoration of public buildings with the highest prevailing technical standards. It is all a matter of propriety. In streets and subway stations where people crowd and jostle, and where the surroundings are familiar and utilitarian, it is as appropriate to place advertisements as it is to use slang in newspapers. The man in the street is not interested in white tiles, even with colored frames; but he is interested in "Sunny Jim" and the "Smile that won't come off." Of the most effective, the most insidious way to improve public taste is to improve the character and setting of these heroes of display advertising, and in view of the fact that certain improvements have been taking

place in recent years, and that "posters" and the like are frequently designed by good illustrators, the level of public advertising might be very much raised by an insistent attempt to make display signs conform to certain architectural conditions. At any rate it should be kept in mind that popular tastes and instincts cannot be wholly ignored in a democracy even by municipal art reformers. The popular taste runs in the direction of lively illustrations of humorous types—in the direction of "Buster Browns" and "Sunny Jims." That is the real popular art of to-day, and any formative art criticism must recognize this fact and give it its due weight. Municipal art reformers should aim to make art interesting and useful, and they can accomplish this result only by bringing their æsthetic standards into some constructive relation with the sort of art display which the ordinary American really enjoys. Americans make a show of enjoying many things which they believe they ought to enjoy; but it is not hard to distinguish the difference between the sort of thing which they are told to like and the sort of thing which they like without being told.

H. D. C.

NEW METHODS AT COLUMBIA.

Various notices in the daily press have attracted attention to the action of the Columbia University Trustees with relation to the School of Architecture. This action which was of a somewhat radical character, embodied the results of the consideration of a long and minute report made to the trustees last spring by the staff of the school in response to a budget of letters which the trustees had invited from leading architects of the city, and had referred to the staff of the school for consideration and report. The substance of this action is as follows:

1. The requirements for admission to the courses of the school for a degree are greatly raised, by the insistence upon two years of collegiate or scientific school study as a requisite for admission, besides a certain proficiency in the orders of architecture, elementary projections, shades and shadows, drawing from cast and the like.

2. A new provision whereby "special students" of exceptional architectural ability, not candidates for a degree, may be admitted to such candidacy without being obliged to make up the entrance requirements. In other words, special artistic and

architectural proficiency and superior performance of the work of the school may, by special action of the faculty, be accepted as a substitute for certain deficiencies in the requirements exacted of other students. This opens the door of opportunity to a class of students whose early training has been deficient but who, nevertheless, are capable of reaching high distinction in the profession.

3. The establishment by the school of official draughting rooms or *ateliers* in the neighborhood of the offices of a few distinguished architects, in which *ateliers* students of advanced design may pursue their work under the supervision and guidance of these distinguished men. The privilege of electing the *atelier* and instructor is also extended to include several private *ateliers* not maintained by the university itself, so that students in advanced design will have the opportunity of studying in any one of at least six different *ateliers*, including the one at the school itself. This introduces a new element of flexibility in the instruction and of emulation in the students' work, which should benefit very greatly the work in design. Furthermore, the policy which has for two or three years been gradually shaping itself in the administration of the school with regard to the duration of the course, has now been definitely formulated in the announcement that "the length of the school course for the degree is indeterminate," so that while some students may cover it in three or three and a half years and others in four years, there is nothing to prevent a student from devoting five or six years to the work. This will remove the stigma which has hitherto attached to the failure to graduate in four years, and will permit the student who works more slowly than the rest or whose time is not fully his own to do his work thoroughly and well rather than hastily.

In addition to these measures the trustees recognized the importance of the graphical side of architectural training by promoting Adjunct Professor Sherman to a professorship of graphics, while Adjunct Professor Hamlin was promoted to the professorship of architectural history, and formally appointed head of the school. These measures place the school upon a new and sure foundation. They destroy the old-fashioned tradition of a course of so many years instead of a course of a definite amount of work. They open the door of opportunity for university honors to men who hitherto have found it closed by lack of early opportunities; they greatly broaden the scope of the

instruction in advanced design; they enlist the services of a number of distinguished architects in the active work of the school, thus bringing the school into closer relations with the profession; and this last purpose has been furthered by officially endorsing the principle already recognized experimentally during the past year, of engaging professional juries to make the awards and pass judgment upon the work in design. These are steps distinctly in advance, designed to place the school upon a new and higher plane, exacting higher standards both of admission and performance and relating its instruction more closely to the actual professional life in many ways. They ought to result not only in a large increase in the number of students attending the school and a material advance in the quality of the work they produce, but also in a keener interest in the school on the part of the profession and of the general public. The trustees have shown that they are warmly interested in the school, that they do not propose to rest satisfied with past achievements, and that they welcome the co-operation, interest and even criticism of the profession.

**THE
METROPOLITAN
SOCIETY
OF
BOSTON.**

Of the making of new improvement societies there is no end—a fact that is notable in itself—so that as a general rule it is hardly worth while to chronicle the forming of a new one. or to speak of purposes until they have been changed into achievements. But occasionally the circumstances that accompany a small beginning seem so certainly to insure an important issue that the temptation to note the beginning and speak prophetically is not to be resisted. Such an instance is that offered by the Metropolitan Society, recently organized in Boston. As a result of several conferences last spring, and the appointment of a committee to work out details, a meeting was called at the St. Botolph Club early in November. At this the organization was perfected, and the following list of officers was elected: President, Robert A. Boit; Secretary, George Howland Cox; Executive Committee, Sylvester Baxter, Meyer Bloomfield, Charles E. Fay, John Mason Little, and Frederick Law Olmsted. The work that the society has mapped out for itself is the physical betterment of the Boston metropolitan district by securing effective co-operation and stimulating increased activity among those in Boston and in its surrounding towns and cities who wish

to make the district more beautiful, convenient and economical as a place of work and residence. And it will assume as an immediate, specific undertaking the support of the governor's recommendation to the legislature on the subject of metropolitan thoroughfares. Various circumstances lend a special interest to the formation of this society. With notably little extension of the Boston city boundaries, there has been a remarkable development of the metropolitan spirit. To more than twenty surrounding communities, that are entirely distinct from it save in the public works, Boston is truly and in an interesting economic sense the "Hub." Water, sewage, and park systems are planned and developed by metropolitan commissions, and the present suggestion is that a metropolitan highway commission be added to these. The advantages of such planning, not only in the case of Boston but in that of every city, needs no explanation. Of the work of the various commissions, that of the Metropolitan Park Commission is, because of its popular character, most widely appreciated, and to make its establishment possible—while the idea was still novel—no living person did more than Sylvester Baxter who became its first secretary and who is one of the prime movers in the new society. The latter is formed, it is also interesting to note, immediately on the conclusion of a series of articles concerning the possibilities of the Greater Boston that Mr. Baxter had been contributing to the "Herald." His cordial enlistment in the present enterprise, in view of his previous success; the support of the governor and the local popular endorsement of metropolitan commissions, make notable the formation of this society.

**AN
AMERICAN
DEFICIENCY.**

There is at least one kind of public beneficence in which the United States is behind the countries across the seas. The fact seems incredible that with all the American lavishness of giving, there should be still any department into which we venture only gingerly, while in Great Britain it has become an accepted means of generously expressing civic spirit. This is the private gift of municipal buildings. Americans give outright nearly every other kind of public structure, but the town hall of the smaller community marks the limit of private beneficence in this direction. We, who are constantly startling the world with our great gifts, can scarcely comprehend such benefi-



THE WELLS BUILDING.

Milwaukee, Wisconsin.

H. C. Koch & Co., Architects.

cence as that announced in an inconspicuous note in the London "Times" which says that Lord Ashton has offered "a minimum of £50,000 for new municipal buildings at Lancaster." The town council, officially notified of the gift, voted, on November 9th, gratefully to accept it; and various other gifts, including a promise to maintain the present town hall and municipal buildings "for the benefit of the town," were made by Lord Ashton at the same time. Lancaster is a place of about 50,000 inhabitants so that a municipal building costing not less than a quarter of a million dollars should serve it pretty well. There is many an American city where such a gift would be acceptable; and with all the giving of squares, parks, libraries and town halls, it is a bit strange that city halls have been overlooked.

A PLAN OF IMPROVE- MENT FOR DETROIT.

Detroit papers report that the Board of Commerce of that city, through its municipal committee, has engaged Charles Mulford Robinson to make a report on practicable measures for the improvement and beautifying of the city. Mr. Robinson went to Detroit in November, spending several days as a guest of the committee and visiting every part of the city. He has since prepared a long written report, in which special stress is laid on the improvement of a portion of the waterfront and the development of the Campus Martius as a civic center — although the whole urban district is more or less covered by his recommendations. Detroit is thoroughly aroused to its possibilities and there is likely to be a very interesting development, on the waterfront at least. In thus securing expert outside advice, the city has put itself in line with Harrisburg, Cleveland, Ottawa, San Francisco and Buffalo, in a widespread movement that is very significant. There is great economy in having a definite plan to work toward so that each step, as it is taken, may be in the right direction and count in the final result.

STREET SIGNS IN NEW YORK.

It is remarkable that it should have been necessary to organize a Street Sign Conference of Municipal Organizations in the great City of New York, and that there should have been need of appointing a committee to appear before the city officials to plead, as they did a few weeks ago, the im-

portance of having street signs. But there was, as every New Yorker knows, such urgent need of the action that it is well to have had it taken. The resolutions of the conference asked: (1) for signs on electric light poles; (2) for "reflector signs" on Welsbach lights; (3) for signs on elevated railroad pillars at street intersections; (4) for metal signs showing white letters on blue enamel at street corners where it is necessary to use the walls of buildings; (5) for blue flash glass sign, with white letters, on the gas lamps. The granting of these requests would certainly make it very easy to find one's way about the city; but the sign would not add to the city's beauty. However, in the present lack of this street equipment, one can understand the eagerness to get anything and a willingness to forego for a time those artistic results which were sought, with much of delay, by the last administration. But this is work that will never be completely accomplished until the signs are artistic and are uniform.

PUBLIC SCULPTURE IN THE BAY STATE.

Civic improvement chronicles include notes of at least three interesting additions in November to the artistic possessions of Massachusetts. One of these was the fountain of Carrara marble presented to the town of Holyoke by Mrs. William F. Draper. The fountain is from the chisel of Waldo Story, and is reported to be an admirable work, well placed on the library grounds. A second is the statue of Robert Treat Paine, in front of the City Hall at Taunton; and the third is the hanging of French's bronze doors in the Public Library at Boston. The Paine memorial is a portrait statue by Richard E. Brooks. The figure is in the picturesque dress of the Revolutionary period, and the plastic acceptability of this is further enhanced by a cloak which hangs from the left shoulder. The material of the pedestal is warm colored granite and the principal inscription is on a bronze panel of "warm, mossy green." The memorial is placed at the junction of several streets converging in an open space before the City Hall, where there is given to it a background of foliage. The sculptor knew his site before he made his model and proportioned his work accordingly. Of Mr. French's doors it is unnecessary to speak here with equal fullness. As is well known, there are six, each containing an allegorical full length figure in low relief, so departing from the much more familiar Ghiberti plan of many

small panels in high relief. The doors are also unusual in the circumstance that they are not outside, but serve to connect the vestibule with the entrance hall. Their added enrichment of the artistic possessions of the famous library makes one only the more impatient to see completed the long-awaited Saint Gaudens groups for the exterior.

**AN
ARCHITECT
WHO
WRITES.**

It is always refreshing and interesting to find an artist who has certain definite ideas about his work and has the power of expressing them; and inasmuch as the art of this country is, in some measure, a gospel as well as a practice, the American artist with communicable convictions has an important part to play, which is independent of the value of his personal work. Of course the best way to preach the gospel of any art is to practice it in a consummate manner; but in a country like ours which takes hold of ideas better than it does of beautiful things, the man who can translate his purposes into words has a peculiar and special value. Mr. Elmer Grey, of Los Angeles, who contributed an article to the January issue of the "Architectural Record" on "Architecture in Southern California," is one of the few American architects who has the disposition and the power to write as well as to design. Mr. Grey is not a college man. He entered an architect's office in Milwaukee in 1887, and attracted attention in 1890 by winning the first prize in a competition for a water tower and pumping station, instituted by the "Engineering and Building Record" of New York. At that time he was working in the office of Ferry & Clas, in Milwaukee, with whom he remained for twelve years, during which time he assisted in the design of two of the largest library buildings in the country, that of Milwaukee and that of the Wisconsin State Historical Library of Wisconsin. Throughout these years he took advantage of his vacations by devoting much time to sketching abroad. Many of his water-color sketches have been reproduced in architectural periodicals, and two of them hang in the permanent collection of the Chicago Art Institute. After Mr. Grey began to practice in his own name, his work consisted, more than anything else, in the design of residences, among which are a group of houses erected at Fox Point, near Milwaukee, have attracted particular attention. In the character of his architectural designs, Mr. Grey must be classed among the group of middle western architects who

have succeeded in combining a careful composition of the masses of their buildings with an irregularity of outline which makes the house harmonize with the unkempt western landscape. A short time ago Mr. Grey's health succumbed to the arduous work which he had been doing, and he went to Southern California to recuperate. He has since resumed the practice of his profession in Los Angeles, where he already considers himself pretty well at home. Associated in the same office with him is Mr. Myron Hunt,



MR. ELMER GREY.
Los Angeles, Cal.

who has migrated to California for much the same reason as Mr. Grey, and who left behind him in Chicago such an enviable reputation for idiomatic and original design.

Both Mr. Hunt and Mr. Grey stand for the attempt to naturalize in this country the best traditions of European architecture. Mr. Grey, for instance, believes that a very genuine American style is in the process of making; but that as yet it is only in its infancy. Significant American variations from the European forms can already be clearly distinguished, but these variations remain undeveloped largely because we so rarely build in a thorough-going way—we so rarely treat our local problems and materials honestly. Wood, for instance, has been the popular American building material, but it has

been used chiefly to imitate effects which can be better obtained by the use of other materials. Mr. Grey, in his own work, has treated his material respectfully by using solid wooden beams for ceiling and solid wooden porch posts. Solid beams will show knots and will check, but both of these qualities he considers virtues rather than defects because they are qualities natural to the material and testify to its integrity. The built-

**THREE
HOUSES OF
MR. MYRON
HUNT.**

We have mentioned above the excellence and quality of some of Mr. Myron Hunt's work. The "Architectural Record" of October, 1904, contained a number of interiors of two houses in and near Chicago—the Healy house of Sheridan Road and that of Mr. Pirie, Jr., in Evanston. Par-



HOUSE OF I. T. PIRIE, JR.

Evanston, Ill.

Myron Hunt, Architect.

up beam or post will warp in time and show its hollow core. It may be graceful and pretty, but it can repair the ravages of time only by recourse to the rouge-pot and powder-puff, while the solid beam must improve with age. The immediate future of American architecture depends on using its proper materials idiomatically, and, inasmuch as the use of wood is in time bound to be superseded, it depends particularly upon the idiomatic use of tiles, armored concrete and perhaps of certain kinds of manufactured stone. This is the point of view which Mr. Grey represents both in his work and in his writing; and there can be no doubt that it is the wholesome and formative point of view both for American architecture and American architectural criticism.

ticular attention to these houses was called in the text of the magazine; and they attracted such favorable attention that we reproduce herewith some illustrations of their exteriors. The designs for both of these houses show an interesting combination of the picturesque and the organic. In the case of the dwelling of Mr. Pirie, Jr., the building is almost on the street, and how firmly and emphatically has Mr. Hunt planted it there! The straight lines of the fence and the extension roof bring out the long dimension and the particular location of the building, while the gable of the porch, repeating as it does the motive of the major gable of the house, breaks the line of the lower roof at just the right point and in just the right way. The design is tight



THE HEALY HOUSE.

Sheridan Road, Chicago, Ill.

Myron Hunt, Architect.

without being in the least stiff and rigid; and it is simple and unpretentious without being in the least insignificant. The Healy house is similarly appropriate and interesting. In this case the architect had the advantages of a larger site, a more substantial material and ampler dimensions. The placing of the porch on the front of the house has interfered with the complete success of the street façade; but assuming that this arrangement was necessary, it is at any rate well-managed. The solid brick balustrade with a stone coping, the plain brick piers, emphasized by a buttress on the wall and the projecting roof with its strong shadows, all of this harmonizes admirably with the plain

nevertheless, how plainly it betrays the hand of the self-respecting and skilled architect! What a contrast it offers the usual machine-made thing!

**PARTY
WALLS IN
CHICAGO.**

For many years it was the practice of architects to pretend that the party walls of "skyscrapers" which in certain situations are actually more conspicuous than the street fronts, were really not to be seen. The front was more or less completely designed according to the ability of



RESIDENCE IN OAK PARK.

Illinois.

Myron Hunt, Architect.

surface and the salient lines of the house. Its attractiveness is derived solely from its strong masses and lines and its lively surfaces and shadows; and its bulk is nicely scaled to the size of the surrounding trees. There is nothing arbitrary about it, as if the architect were forcing an idea; yet there is nothing merely conventional. It stands on its own site and speaks its own language. As much cannot be said for the little brick house, also by Mr. Myron Hunt, illustrated on this page. In this little box the scale of the bay window and the shadow it throws makes every other aspect of the façade, except the surfaces, insignificant. The design is not the issue of a very happy idea; yet,

the architect, but it was assumed that the side and rear walls would eventually be screened by other tall buildings and that in the meantime no one need look. This practice is still followed in many instances; but in New York it has become more and more the custom to pay some attention to the lesser façades of large office buildings. There has rarely been any effort to construct these walls of materials as expensive as those used on the street fronts; and in many cases no openings are possible; but bricks of several colors arranged in appropriate patterns can be used and have been used in a number of New York buildings. Such instances are scarcer in Chicago; but we reproduce here-



MR. MYRON HUNT.

Los Angeles, Cal.

with a photograph of the party wall of the Rector Building at the southeast corner of Clark and Monroe streets. In this building, which is interesting in several respects, and which will receive more extended notice after its completion, the architect, Mr. Jarvis Hunt, has made the party wall very much more interesting than usual at an expense which cannot have amounted to more than a few hundred dollars. The result has been obtained by using face and common brick of varying colors, arranged in appropriate patterns. As the building actually elbows the adjoining building, no projections were possible; but this fact merely brings out the screen-like function and character of the wall. It is to be hoped that this example will find an increasing number of imitators.

**THE
HOUSE OF
LOUIS A.
THEBAUD.**

We reproduce on the following pages of this issue some illustrations of the house of Louis A. Thebaud, situated at Morristown, N. J. The architects of this house, Messrs. Roos and Booraem, have managed to combine both in the interior and the exterior of the building good architectural design with a pleasant, home-likeness of effect. It shows

throughout the marks of careful study by an experienced architect and of an owner who desired comfortable as well as interesting surroundings.

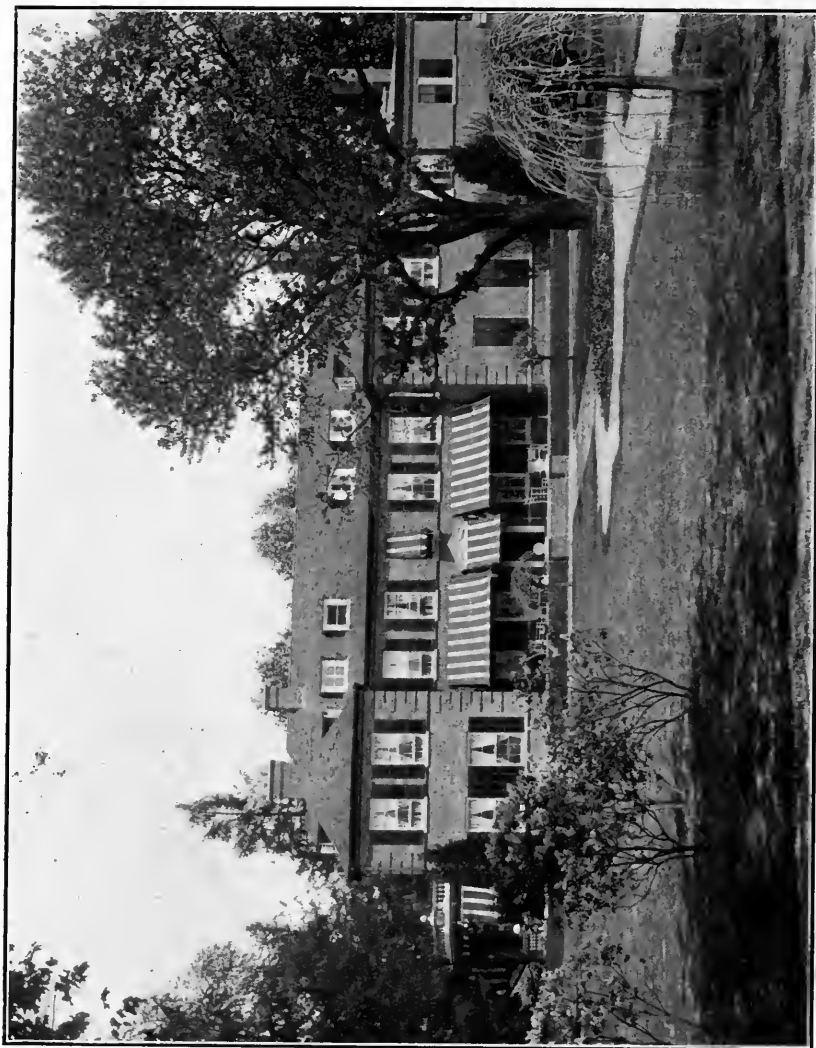
The scale of the house and grounds is not that of a large country estate. It is rather that of a spacious and handsome suburban house, which is surrounded by enough land to enable the architect to obtain his full effect, but which is nevertheless influenced by the fact that it is approached from a street. This condition explains certain of the landscape arrangements.



THE RECTOR BUILDING.

Chicago, Ill.

Jarvis Hunt, Architect.



THE HOUSE OF MR. LOUIS A. THEBAUD.

Morristown, N. J.

Roos & Booraem, Architects.



THE HOUSE OF MR. LOUIS A. THEBAUD.

Roos & Booraem, Architects.

Morristown, N. J.



THE HOUSE OF MR. LOUIS A. THEBAUD.

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DINING-ROOM AND BILLIARD-ROOM.

House of Mr. Louis A. Thebaud.

Morristown, N. J.

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INTERIOR FIREPROOFING.

[The following is the fourth of a series of Technical-Industrial Reports upon a certain System of Fireproofing, made to the Manufacturers by the well-known expert on Building Construction, Mr. William J. Fryer.]

An Ideal Material—the Hecla

In the preceding chapters the defects and disadvantages of various materials as ordinarily used in fireproof work have been pointed out, and the statement made that there is room for and a necessity for something better. An ideal fireproof material has been produced and placed on the market by the Hecla Iron Works, the largest and best known manufacturers of ornamental iron and bronze work for buildings in the United States. The high standing of this company is a guarantee in advance that their fireproof material bears a reliable stamp of merit.

What the Hecla Material is

The manufacturers make no secret of the Hecla Fireproof material. It is composed of a mixture of magnesite, a mineral, and chloride of magnesia, a fluid, and in this mixture is used a fibrous material such as excelsior, hemp, straw, sawdust, wood pulp or the like, so that the product itself can expand or contract without warping or cracking. The chloride of magnesia is the setting material when added to the magnesite, and converts the mass into a light, strong, stone-like substance that cannot be rendered flammable by heat at any known temperature. Special-designed machinery is used for the mixing, and when the chloride of magnesia is added to the magnesite and fibrous material, the composition is ready to be used in place or put in any desired form by simply being pressed or tamped. For the exposed surfaces, on the outsides of the coarser body a thin coat of the material, about one-quarter of an inch thick is applied at the same time, but using for the latter wood pulp as the fibre, in order to make a dense, smooth finish. In case the surface is to be plastered, as for a partition

or a ceiling, the finer surface is omitted and the plastering done direct on the coarser body which affords a good key for the plaster coat. The material can be sawed or cut almost as readily as wood, although a little hard on tools. It can be polished or stained, oiled, varnished or otherwise treated in a decorative manner.

Cost of the Installed Material

There is nothing startling about the Hecla material. In a modified way, the merits of magnesia coverings for steam pipes are quite generally known. The principal ingredient entering into the Hecla material is rather expensive, as it is imported, and the first cost in Greece, the sea transportation, the import duty, and the middlemen's profits all added together bring the price per ton rather high for what may be considered a raw material into which no American labor has entered or even is in competition. But in some other respects an advantage in cost is had over that of burnt clay and concrete, so that the Hecla material can meet other systems of fireproofing on fairly equal grounds as regards price when installed in buildings.

Evidences of Fireproof Qualities

What are the evidences of the Hecla material being fireproof? Prof. Ira H. Woolson, E. M., made tests of several specimens of the material in the testing laboratory of Columbia University, to ascertain the effect of the continual application of fire to the specimens for periods of time under temperatures varying from 600° to 2,700° F. with an average of 2,500° during the last fifty minutes in one of the tests. The melting point of cast iron and steel is about 2,500°, and a one-inch

square bar of cast iron used as a support for a specimen tested was half melted away, which was confirmatory evidence of the high heat attained. The transfer of heat through the specimens by conductivity was noted. Upon the top side of a sample block one foot square and $3\frac{1}{4}$ inches thick, laid with the smooth surface down over a 6-inch furnace with strong air blast, a thermometer was placed directly above the furnace fire with the bare mercury bulb resting upon the sample, and suitably protected from the surrounding heat. With the highest temperature a maximum of 60° was recorded, the material being scarcely warm to the hand on the side opposite the surface subjected to the extreme heat. At the end of the heat test the sample was removed from the fire and plunged under a strong stream of cold water. No cracks resulted. The effect of the force of the water was to wash off the soft and spongy charred surface of the material. The elaborate report of Prof. Woolson ends with the following opinion: "Taking all the evidence into consideration, I should unhesitatingly say that the Hecla material is a most excellent non-conductor of heat and its fireproofing qualities of the best. I believe it safe to say that if a fire were to occur in a building where this material was used it would remain intact long after all the ordinary construction material surrounding it had perished."

Fire Door Test

A Hecla fireproof door, two inches in thickness, was tested in December last in the Underwriters' Laboratories in Chicago, under the direction of the National Board of Fire Underwriters, and subjected to fire and water as in a real conflagration. The door was in position at the end of the fire test and proved to be an effective fire stop, free from warping or bulging under a high temperature; it proved that the material is a very good non-conductor of heat; that the material does not support nor carry flame, but is slowly calcined on the surface at high temperatures, the calcined surface serving to protect the material back of it; and that the material is not materially affected by the application of a stream of water and consequent rapid cooling.

Used for Inside Trim

For inside trim the Hecla material has been used in a number of buildings where cost was a secondary consideration: In the St. Regis Hotel, the latest and most expensively fitted up of hotels, and in the Hanover Bank Building in New York, and in the new addition to the Prudential Life Building in Newark, and in other buildings.

For Floor Surfaces

Architects are conservative in adopting new materials, and very properly so. Suppose an architect has a building to erect whose height comes under the provision of a law which forbids the use of wood except for certain purposes, and then only on condition that the wood so used shall be treated by some so-called fireproof process. The architect has doubts of the efficacy of "fireproof" wood, but he knows that the treated floor boards will result in a trebled increase of cost over a non-treated floor. The usual alternative is to use a cement or a tile surface floor. He objects to a cement floor on account of its hardness to the feet and because it grinds up into dust, and is sure to crack. A tile floor is too expensive. The Hecla fireproofing is offered to him, but his own judgment or the liking of his client is for hollow burnt clay blocks or stone concrete as the filling between the steel floor beams, with cinder concrete on top of the arches. Very good. The Hecla fireproofing still offers to him a relief and an advantage in getting not only a satisfactory, but the best walking surface for his floor that he can possibly get in the present state of the building arts. On top of the cinder concrete which reaches up level with the top of the floor beams is put two inches in thickness of the coarser or cushioned Hecla material with a quarter of an inch in thickness of the same but finer material for the finished surface. Such a floor will have all the elasticity of wood, be without joints, will not crack or warp, and as it can be treated the same as though it were of wood, will be handsomer than wood and be more durable, besides being fireproof, and will wear better than cement or white marble.

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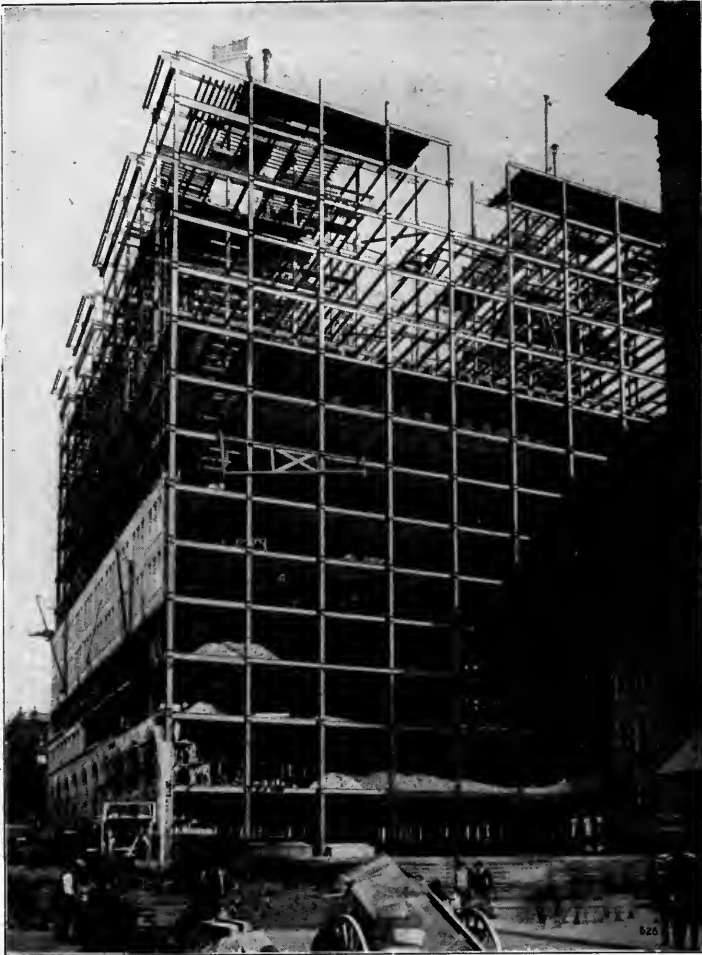
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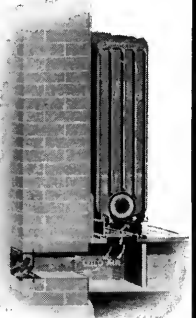
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The Architect's Side of It

AN EXTRAORDINARY STATEMENT

"The complaint is sometimes made," said one of our leading Architects, "that we 'artistic fellows' are impracticable. We are supposed to have some very 'queer ideas' that have got nothing at all to do with the 'real thing.' Perhaps we have, I don't know, but if we have, I don't believe that we can be doing anything worse than is done daily by the men who boast of their practicalness and their hard-headed business sense. For instance there are millions, yes hundreds of millions of dollars spent annually on catalogues. A great many of these millions are poured into the offices of us Architects. In this office, for instance, we receive about 4,000 catalogues a year. What are they sent to us for? I often wonder what the idea was in the head of their originators. Do the makers of these catalogues think that we have leisure to read 'literature,' and are interested in going through pages telling us about the history of 'Calcium Carbide,' the 'Evolution of Hardware,' or the development year by year of the firm of 'John Smith & Co.' Don't laugh! Look at this, and this, and this.

"Here is one of the biggest plumbing firms in the United States that projects into a busy Architect's office a 168-page book, setting forth the history of the firm. I have hardly time to read my newspaper, certainly little time even for professional reading in which I am interested, and my case is the case of nearly all Architects who are at all likely to buy the goods made by that particular high-class firm.

"I wonder what induces a highly practical concern to waste its money in this way. I imagine that they think they are doing something. Why don't they make a few inquiries and find out really where 'they are at'?

"Again, look at this. Here is a ponderous volume or catalogue sent out by a big hardware concern. It is intended, I suppose, for the use of Architects, yet it contains illustrations and information in regard to 'sausage meat choppers.' Let us turn to the book. Look at all these pages devoted to the cheapest kind of door-knobs, Japanned locks, simple window catches, etc., etc. Do Architects specify any of these? They are bought at the hardware store, and they are so common that to get them you hardly have to call for them. That volume cost the firm that got it out a great many thousands of dollars, and yet, I venture to say, that so far as we Architects are concerned it could be boiled down to advantage to about 25% of its present size. The man who produced that book had not learned to 'distinguish.' His book performs several functions. It contains information for the Architect, information for the big contractor, information for the local contractor, information for the hardware man of many degrees, from the big

store in New York City to the small corner store at 'Jones' Corners,' but the man who got the book up bunched the entire output, and, therefore, wastes his money, distributing useless information to people who can't use it. The volume is certainly 50% inefficient. Of the cost, also, I should say 50% is thrown away. Why not send to the Architect the information that the Architect really wants and really uses, and not waste money dumping upon him the information about 'meat choppers' and 'Japanned door-knobs?' But don't think that the hardware man is alone in this business. He has good company.

"Here is a monstrous volume produced, as you see, by another of our leading plumbing supply firms. Feel the weight of it. That weight is put there, no doubt, in order to make the book easily handled. I suppose it is made big because nearly all of the publishers in the world are finding out that the people want small, light and flexible books. Single volumes of 'Shakespeare' have long ago given place to a dozen or more little portable books in a case. Moreover, as you will see, this book is so large and expensive that the publisher can get it out only once every four years. That is another advantage of 'size.' The book is only up to date for a short period; then to correct this, the firm keeps on sending us leaflets which, by the very nature of things, 'get lost.' Oh! it's a great practical game, this. Moreover, this big plumbing volume contains a great mass of illustrations and other matter that is not of the slightest consequence to the Architect. It is all right for the local plumber, but what does the Architect want with hundreds of commonplace plumbing articles which he never specifies? All of this is a very stupid waste of money, but it becomes sublimely ridiculous when you join it to the whole 'catalogue game' and see how this is played in its entirety.

"Hardly two catalogues that come to this office are of the same area. Hardly two of them are of the same thickness. I was going to say that hardly two of them opened in the same manner, but there is no need to make this game any funnier than it is. Some catalogues have stiff covers, some are flimsy and thin, some are dainty and delicate in color, as though they were intended for a ladies' boudoir. These butterfly things usually announce inside the merits of some ponderous piece of machinery. Some of these catalogues are made to hang up, but there is no indication of what we are to do with the majority of them. Shall we stack them up on their edges, or lay them down on their backs? If we do this, how can we find anything we are looking for? I want, for instance, at a given moment, the catalogue of 'Jones & Co.' It measures 4x8. There are sixteen pages in it. It is squeezed in somewhere among hundreds of other catalogues, some of them four or eight times the size of it. I might just as well hunt for a postage stamp in the debris of a rag-paper shop. Oh! I know it is supposed that some Architects keep 'a system'; so they do. I do. We spend money in having our office boy file the catalogues away as they come in. He is also instructed to make a card index. That's the theory of it. It seems simple enough until you begin to work it out. The office boy's brains are not equal to it. Ask any librarian whether he finds it an easy thing to make a catalogue of books. He will tell you it isn't. Should this volume of 'Smith's,' for instance, be indexed

under 'Sociology,' or 'Economics,' or 'History'? Those are the puzzles.

"I hunted the other day for the 'Westinghouse' catalogue, and I found it down under 'Contractors'—the office boy had put it there. Well, there are electrical contractors, but when I am looking for the 'Westinghouse Co.'s' products I do not naturally associate them with the operations of a firm like 'D. C. Weeks,' the 'Fuller Company,' or the 'Thompson-Starrett Co.' Elevators sometimes go among elevator catalogues, sometimes under 'Machinery.' Boilers are placed under 'Steam Fittings,' sometimes under 'Heating.' The result is a mitigated chaos. You see, some office boys do better than others, but all office boys get somehow mixed. Of course, if I could afford to let my Specification Manager look after this work of the filing away of catalogues, it would be all right. That is too costly. Besides, we haven't time. Again, even if the catalogues were filed right in the beginning, they must be taken out of their files; they must be handed around; they are sure to be left on desks, dropped on the floor, and when they are to be refiled again, the 'filing difficulty' again once more comes to the front.

"Of course, most catalogues are thrown away. I suppose our office throws away intentionally 70%, and 20% gets lost 'somehow,' but the worst feature of all is this: catalogues are intended for reference. They are not, they never can be 'reading.' Any firm that tries its hand at 'literature' in a catalogue pays for nothing. The value of catalogues is for reference. By reference I mean that they shall be turned to, so to speak, at a moment's notice, for the purpose of obtaining a specific piece of information.

"A dictionary is a book of reference, and anything that is put in the dictionary that contradicts the reference idea may be good matter, but it certainly is in the wrong place. If the catalogue isn't an article of reference, it isn't anything. It is not even good waste paper.

"What the Architect would like to do with the catalogues is to have them in a dictionary shape, so that he can get at 'Laundry Machinery,' or 'Wire Glass,' or 'Radiators,' or 'Bathroom Fixtures,' or 'Hot Air Furnaces,' or 'Vacuum System of Heating,' and find with his thumb just what he wants. If his thumb can't do the work, there is something wrong with the dictionary.

Long ago, the railroad men of this country were forced by common sense to adopt a common gauge for their track. Why don't the catalogue men do the same thing, standardize their printed matter, and then, if you please, nothing will seem more natural than that they should get all together and have it down in one book, or two books, or ten books with an index. The Architect will then have what he wants, a Dictionary of Building Materials. Don't tell me, however, that the Architect is the only impracticable pebble on the beach so long as building material firms stick to their present methods of dealing with their catalogues. I suppose they stick to it because they won't think about the situation. The heads of houses will not go out and make inquiries for themselves. They accept a lot of 'interested advice' from existing catalogue printers, etc., as being 'straight goods.' Moreover, it pleases, I suppose, the head of a firm to see and handle his own literature. He talks

with the paper man, the cut man, the printer. He worries his head about the color of the cover, paper, the color of the ink, the phraseology of the letter-press, the exact wordings of titles, etc. He talks and compares and advises, and finally the booklet is produced. But into how rude a world is this offspring of his thrust! So long as his catalogue is in his own hands, it is undoubtedly a thing of beauty, but that is not the commercial position from which he ought to look at it. He should regard it rather after it has been dumped in the mail and delivered amid a mass of paper (one of a thousand similar catalogues) in an Architect's office, subjected to the dangers of the waste paper basket and the carelessness of the office boy.

"Most of our manufacturers today are simply distributing printed matter from the press to the waste paper basket. Remember, I am talking so far as we Architects are concerned. I suppose people do 'write in' making inquiries for information, and 'literature' is then in order, but why mix drinks; why confuse ideas? The Architect needs the reference; the applicant needs information, and perhaps the story about the firm doesn't do any harm then if thrown in."

The foregoing is one of about One Thousand interviews held, by person and by correspondence, with the leading Architects of the country in regard to Catalogues. These interviews were undertaken by the Architectural Record in order to appraise with certainty the value of catalogues. The information gathered will gladly be placed at the disposal of any Building Material firm who will drop us a postal card. There is not a single dissenting opinion from the one expressed above among the entire One Thousand. As a result the Architectural Record Co. has undertaken to organize a Modern Catalogue System—a Dictionary of Building Materials on an elaborate scale and Scientific Method. A large number of the biggest firms in the Construction field are adopting it and arrangements have already been made to place the system in the offices of Five Thousand Architects, Engineers, Contractors and others. The names of these five thousand offices will be furnished. Correspondence with firms now issuing catalogues (90% waste) is solicited.

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Three New Hotels

One of the most conspicuous features of the building movement which has been taking place of late years has been the large number of new, spacious and handsome hotels which have been erected in almost every important city of the country. In Washington the new Willard has been built and has become the leading hotel of the national capital. In Baltimore the Hotel Rennert has been superseded by the Hotel Belvidere. In Philadelphia the new Bellevue-Stratford makes any hotel building, which preceded it in that vicinity, look insignificant. In Buffalo the Lafayette has proved to be an acceptable addition to the local stock of hotels, while in New York all records of hotel construction have been broken. Some eight buildings of this class, ranging from ten to twenty stories high, intended exclusively for transients, have been, or are being, erected, while the number of family hotels which have been built in the central part of Manhattan is not far from 100. The western cities have not done quite as much in this respect as those of the south and the east. Pittsburg has its Hotel Schenley, but Chicago has had no new hotel building of first importance since the Auditorium was erected. We understand, however, that Chicago and other western cities propose soon to follow the example of Philadelphia and New York.

These new hotels are for the most part in a different class architecturally from any similar buildings in the same locality which have preceded them. The

best hotels of Washington, Baltimore and Philadelphia had a reputation for good cooking and good service; but the buildings in which they were housed were antiquated. The new buildings, on the contrary, are all of them "sky-scrapers" constructed in the most approved manner, and decorated with every intention of obtaining a good-looking, as well as a showy, effect. The fact is that the big American hotel has become very much of an architectural convention, and it is a convention to which a certain amount of propriety belongs. The problem was to design a sky-scraper of very considerable dimensions in such a manner that it would be distinguished from the office-building and suggest some relation to domestic life. There were no precedents, either European or American, to assist in the satisfactory solution of this problem. The big hotels of Paris merely conformed to the peculiarly Parisian convention of street architecture, while those of London were nondescript. The prominent American buildings specially designed for hotel purposes, such as the Astor House in New York and the Palmer House in Chicago, were gloomy structures, more closely related, in the impression they made upon the feelings, to mausoleums than to any more exhilarating kinds of domestic architecture. Even the Auditorium, admirable as in certain respects it is, did not offer any practicable suggestions to the subsequent designers of American ho-

tels. In the first place, it is, with its offices and opera house, more than a hotel; and then the effect it gives, while powerful, is by no means as pleasant and gracious and inviting as the effect of a transient habitation should be. The design of the contemporary American hotel must be traced in its origin to another building erected at about the same time as the Auditorium, viz., the Waldorf in New York, which with its bigger brother, the Astoria, indicated the main lines of the design of a hotel "sky-scraper."

It would not be hard to find fault with the design of the Waldorf-Astoria; but, nevertheless, the architectural convention, which was established by this hotel was a respectable convention. It conformed to the regular "sky-scraper" convention by the division of the façade into a solid basis, a main shaft monotonously treated, and a more elaborate ornamental crown or capital; but a somewhat pleasanter and more habitable effect was obtained by the use of warmer and more attractive materials, and by the treatment of the crowning member, which was converted from a cornice into a roof with dormer windows, thereby adding much to the domestic appearance of the building. Whatever its faults, a similar manner of treatment has been popular ever since. It was adopted in the Hotel Touraine, of Boston, and in the Manhattan in New York, and, with one or two exceptions, it has been adopted in all the more recent metropolitan hotels. Of course, important changes have been made in details, and some designs have been more successful than others. Many variations have been tried in the use of materials, and in several important buildings stone has been used throughout. I should say, however, that the use of a good red brick for the monotonous intermediate stories of the building has so far constituted the happiest selection; and I am willing to risk the statement that the most completely successful example of this type of design is to be found in the Hotel Astor on Long Acre Square, New York City. The architects,

Messrs. Clinton & Russell, had the advantage of three frontages and a building of comparatively modest height; and they used their advantages to design a structure that has not only mass but some color, modeling, form and proportion.

The peculiar merits exhibited by the design of the Hotel Astor in New York are also to be found in the design of the Hotel Belvidere, in Baltimore, of which the architects were Messrs. Thomas & Parker. These architects also had certain unusual advantages. The Hotel Belvidere is situated on North Charles Street, some distance beyond Monument Square. Its location consequently is pretty well removed from the business district of the city, and its surroundings are distinctly quiet and domestic. It was natural that its architects should under such circumstances emphasize the domestic character of the building, and this they were enabled to do, both by the dimensions of the plot at their disposal and by the comparatively modest number of stories which they were obliged to provide. When a building is, say, fifteen or more stories high, the proportion between its height and its other dimensions (unless it occupies almost a whole block) is such that it is practically impossible to make any but the vertical lines and members count. The structure must become frankly a tower and a tower rather than a column, because the attempt to ornament the crowning member of such a tower almost inevitably fails. This condition of the design of "sky-scraper" is becoming more and more generally recognized, particularly in business buildings; but it is easier to dispense with strong horizontal lines in office buildings than it is in buildings such as hotels, which seek certain domestic associations. Wherever a cornice has been used, as in the Hotel Belmont and the apartment hotel adjoining the University Club in New York, the cornice necessarily becomes so large that it has to be made of metal—a necessity which the architect who likes honest materials seeks to avoid. On the other hand, tall buildings in which the sloping



BALL-ROOM OF THE HOTEL BELVIDERE.

Baltimore, Md.

Parker & Thomas, Architects.



EXTERIOR OF THE HOTEL BELVIDERE.

(Rear View.)

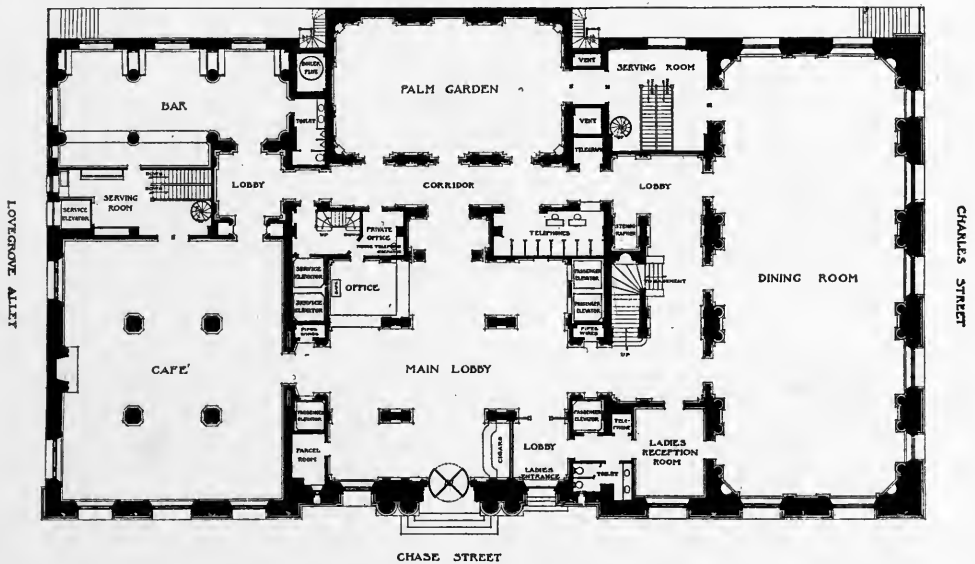
Baltimore, Md..

Parker & Thomas, Architects.

roof has been adopted, such as the St. Regis, the roof becomes insignificant compared to the total height of the building. The Hotel Belvidere is, however, only 13 stories high, and the plot on which it stands measures 106 on Charles and 185 feet on Chase Street. These proportions have enabled the architects to adopt an effective horizontal division of the height, to give the roof a slant which makes it look like a roof, and to crown the middle member of the façade with a cornice, which is strong enough to reach its full effect in the total mass of the

and that the "architecture" of such buildings is to be confined to the front—this pretence, which has been so fruitful of architectural anachronisms, has in the present instance been entirely discarded. The exterior of the Belvidere, which accompanies this article, is a view of the rear, and it has received the measure and the same character of architectural treatment as that bestowed upon the front.

The interior of the Belvidere also possesses certain merits not usually to be found in hotels. The architects natu-



PLAN OF THE GROUND FLOOR—HOTEL BELVIDERE.

Baltimore, Md.

Parker & Thomas, Architects.

building. The scale of the whole façade is most successful, and gives the structure, in spite of its bulk, an aspect of propriety even in its quiet surroundings. In other respects, also, the design is unusually successful. The pale color of the brick harmonizes with the limestone base and with the color of the roof, and the effect of the brick is not diminished, as is so frequently the case, by an excess of limestone trimmings. Finally, another still less common merit is the fact that the building is designed to show on every side. The pretence so frequently made that the rear and the sides of a tall building will not be seen

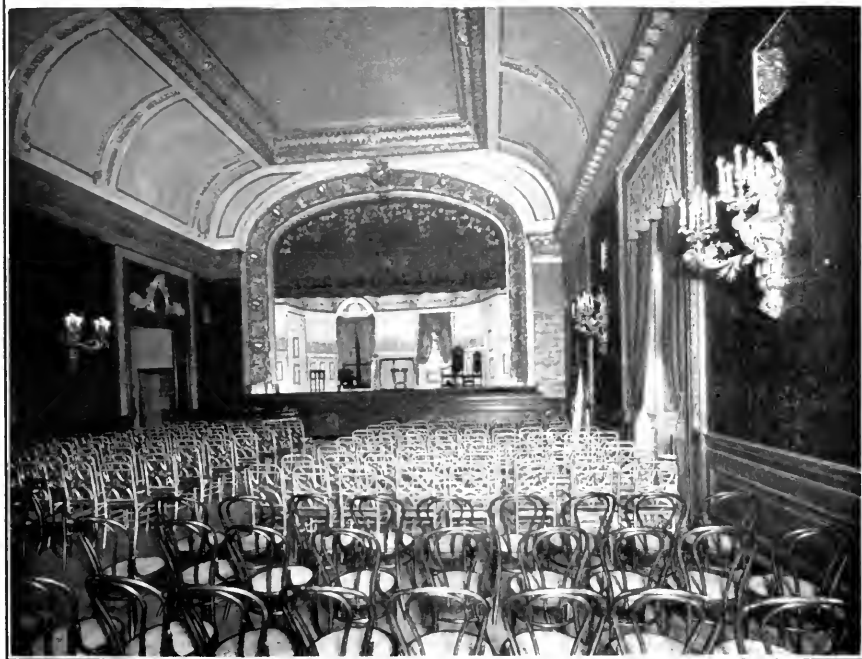
rally did not have as much money at their disposal for the decoration of the building as they would in case it had been erected in a larger city. They were obliged to make, that is, a presentable show with comparatively moderate means, and this they have conspicuously succeeded in doing. They have made the public rooms of the hotel attractive with the use of modest materials, and without affording any suggestion of cheap and slovenly work. The general office, for instance, is finished in Caen stone—except, of course, the floors and the ceiling, both of which are treated with discretion. The extent



CAFÉ AND BAR OF THE HOTEL BELVIDERE.

Baltimore, Md.

Parker & Thomas, Architects.



THE OFFICE AND THE THEATRE OF THE HOTEL BELVIDERE.

Baltimore, Md.

Parker & Thomas, Architects.



THE PALM-ROOM AND THE RESTAURANT OF THE HOTEL BELVIDERE.
Baltimore, Md. Parker & Thomas, Architects.

to which this excellent stone is being used is a noticeable and a praiseworthy characteristic of contemporary American semi-public interiors. In the case of the Belvidere the office is spacious without being vast, and it is well planned. A broad passageway to the left of the entrance leads to a large lounging-room. Another similar passage to the right leads to the main restaurant, occupying the Charles Street front of the building. Finally the entrance to the so-called palm-room is on an axis with the main entrance and is situated as usual at the bottom of the hotel court.

Of these rooms the main restaurant is the least attractive. The scheme of decoration, which is taken from the period of the Greek Revival, is consistent, and the scale of the detail is excellent; but the effect is heavy, and the colors, particularly that of the curtains, are dull and somewhat depressing. The palm-room, on the contrary—or better the lattice-room—is just as distinctly an amusing and interesting apartment. The warm red tiles in which the floor is laid form an agreeable variation from the usual carpets, and the lattice work, with which the walls are covered, is a happy expedient to give the out-of-door effect, which, to a greater or less extent, is always sought in a room of this kind. It is one of the few eating rooms in this country which is charming rather than merely magnificent, and the only criticism one has to make is in the way it is lighted. The light from the windows on the back is shut off by curtains, probably because they give upon a court, in which certain necessary but perhaps unseemly services are performed, and the consequence is that as the light from overhead is not sufficient, the illumination of the room, even on brilliant days, is almost entirely artificial. It is unfortunate that such is the case, because a room which pretends to be out of doors should be, above all others, fully and brilliantly lighted. The lounging-room, also, is an unusual and successful apartment—with a low dado of dark stained wood and a wall-covering above of dark

gilt and a beamed ceiling. Here, again, the floors are tiled, and the general effect is quiet and comfortable, yet at the same time handsome and appropriate. The mantelpiece is an elaborate copy in Caen stone, and is made somewhat flamboyant, doubtless because it is seen through the doorway from the office beyond. It is the only feature of the room (almost of the hotel) about which the error has been made of making any one member excessively conspicuous.

The new Willard Hotel in Washington and the Bellevue-Stratford in Philadelphia are both of them situated in or near the business parts of their respective cities. In style they bear the same relation to the forms of French domestic architecture as does the Belvidere; but they have set out to obtain a more imposing effect by the use of more expensive materials. Stone has been used throughout the façade of these Philadelphia and Washington buildings; but I am unable to see that there has been any increase of effect commensurate with the increase in cost. The architect of the new Willard had much the same advantages as the architects of the Belvidere or of the Hotel Astor in New York. He had three frontages, of which the longest offered a magnificent opportunity for a fine façade, and a building no more than thirteen stories high to compose; but in spite of these advantages, and of the fact that the architect of the new Willard had behind him experience derived from designing the Waldorf-Astoria and the Manhattan in New York, his achievement in the present instance does not rise above the commonplace. Perhaps his experience was such as to discourage rather than to assist him. At any rate, no one can compare the façade of the Belvidere with that of the new Willard without being impressed by the fact that in the treatment, both of the masses and the details, the Belvidere shows a truer and finer hand. In the Belvidere the plain base, the central division, with its frankly monotonous openings, the cornice, the roof and the ornamentation all make the right contribution to the general effect,



Baltimore, Md.

LOUNGING-ROOM OF THE HOTEL BELVIDERE.

Parker & Thomas, Architects.



BALL-ROOM OF THE NEW WILLARD HOTEL.

Washington, D. C.

Henry J. Hardenbergh, Architect.



ENTRANCE TO THE HOTEL BELVIDERE.

Baltimore, Md.

Parker & Thomas, Architects.

whereas in the new Willard the roof, which should be so prominent and picturesque a feature makes no impression at all, the cornice is flattened on the wall, while the base and the central division of the façade are neither sufficiently distinguished from each other, or sufficiently attractive in themselves. It should be added, however, that the interior of this hotel is much more successful. Compared to the Belvidere it

sort of success as that achieved in the Belvidere extremely difficult. It is very difficult, that is, to scale the different members of an eighteen-story building so that each will count in the way that it should in the general effect, and it is particularly difficult, as I have already pointed out, to give the strong horizontal lines, which the style of the building demands, their sufficient value. The architect has ignored this aspect of his de-



ENTRANCE TO THE NEW WILLARD HOTEL.

Washington, D. C.

Henry J. Hardenbergh, Architect.

is rather showy; but that is as it should be in the biggest hotel in Washington. The showiness is, however, informed and moderated by good taste, and the total effect is distinctly gay and attractive.

The Bellevue-Stratford in Philadelphia is in a different class from the hotels already considered. The fact that it is eighteen rather than thirteen stories high makes the achievement of the same

sign, and has drawn his plans as if the building was only ten stories high, and was to be seen as it is shown in the photograph, from the eighth story of a neighboring office building. From the street, the divisions and details scarcely count at all in the general mass, except to produce the effect of a regular and not very conspicuous eruption. There are far too many lines on the façade, too many attempts to introduce



Washington, D. C.

THE NEW WILLARD HOTEL.

Henry J. Hardenbergh, Architect.



EXTERIOR OF THE BELLEVUE-STRATFORD HOTEL.
Philadelphia, Pa. G. W. & W. D. Hewitt, Architects.



THE TEA-ROOM AND THE OFFICE—HOTEL BELLEVUE-STRATFORD.
Philadelphia, Pa. G. W. & W. D. Hewitt, Architects.

vertical and horizontal distinctions, which are lost in the height and bulk of the eighteen-story colossus. The very insignificance of these distinctions does have the advantage of leaving the mass of the building effective, which it might not have been to the same extent, in case some ambitious but clumsy attempt had been made to cut the façade more deeply up and down. Consequently while the façade contains a great deal of careful work on the detail, which has been wasted because of an imperfect appre-

ornament the space surrounding these apertures with a form which, unless it is solid, is meaningless.

The interior of the Bellevue-Stratford constantly suggests, as it was doubtless intended to suggest, the Waldorf-Astoria. It was evidently the intention of the owner to produce the same impression of overpowering and spacious magnificence upon his patrons as that produced by the famous and popular New York hotel, and it is most assuredly true that the majority of his patrons



THE BALL-ROOM OF THE BELLEVUE-STRATFORD HOTEL.

Philadelphia, Pa.

G. W. & W. D. Hewitt, Architects.

ciation of the inevitable limitations of the design of an eighteen-story building, still the total effect has not been deprived of its fair share of impressiveness. The worst solecism, which the façade shows, is the piercing of the pilasters running from the twelfth to the fourteenth stories with windows. There is no excuse for such architectural insincerity. If the windows had to come where they are (as of course they did), no attempt should have been made to

will be similarly impressed. In spite of its smaller dimensions the ground floor of the Bellevue-Stratford gives an impression of being more spacious than the Waldorf-Astoria, because it has been built all at once and planned as one hotel, instead of being planned as two hotels. Its walls are high and broad and ample. The walls and the columns are resplendent with marble and gilt. The furniture has all been specially designed or carefully selected. The smaller



THE RESTAURANT AND THE PALM-ROOM OF THE HOTEL BELLEVUE-STRATFORD.
Philadelphia, Pa.

G. W. & W. D. Hewitt, Architects.

public rooms are hung with costly fabrics, and most elaborately decorated. The standard of workmanship does not, of course, equal that of the St. Regis in New York. Cheaper materials have been used for the walls and floors of the restaurants and the gilding has not been toned down until it obtains its richest color value. But then the St. Regis stands alone in the country for lavish expenditure in order to secure perfection of workmanship and magnificence of effect. The St. Regis apart,

keeping some congruity among adjoining rooms, is one which does not always lead to entirely successful results. The architects of the Hotel Astor, for instance, have gone to the limit in designing different rooms in different styles. There are French rooms, which are extremely French, German rooms which are desperately German, Dutch rooms which are fearfully Dutch, a Pompeian room which makes one think of Vesuvius, Chinese and Japanese rooms which are as Oriental as a



LADIES' RECEPTION-ROOM—BELLEVUE-STRATFORD HOTEL.

Philadelphia, Pa.

G. W. & W. D. Hewitt, Architects.

the Bellevue-Stratford has no superior in the country for the splendor of its appointments.

One cannot, however, altogether envy the architect, who is confronted by the task of designing the various apartments of a big hotel. These different rooms must be all somewhat overpowering in their magnificence, but, at the same time, they must be very different. The attempt to obtain sufficient variety, while at the same time

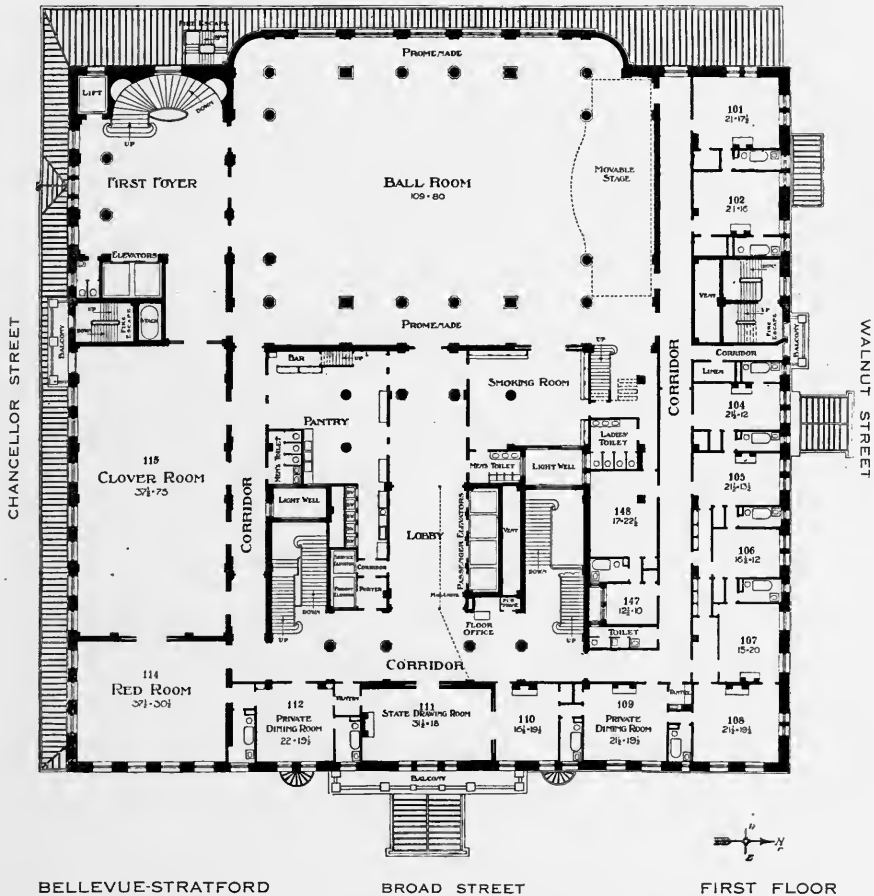
Buddhist god, a yachting cabin and a hunting lodge for convivial sailors and shooters, and, finally, several rooms in the "new art" style, which are about the most extraordinary things in the whole extraordinary collection. The object has evidently been to suit everybody's taste and to pique everybody's curiosity, and the architects have arranged this architectural topical song both with fidelity and skill. This is, however, an extreme instance. Other



RECEPTION AND SITTING-ROOMS—BELLEVUE-STRATFORD HOTEL.
Philadelphia, Pa. G. W. & W. D. Hewitt, Architects.

architects have sought variety, but they were not obliged to seek it for its own sake. Nothing similar has been attempted in the Hotel Bellevue-Stratford. The effect of this hotel is, on the contrary, rather monotonous—a monotony of magnificence. It has always had an excellent reputation for its table, and the ground floor is naturally taken

room in the Bellevue-Stratford, as in the Belvidere and in the Hotel Astor, is what must be called the palm-room. This apartment in the Philadelphia building is not mysterious and spectacular, as in the New York building, or dainty and charming, as in the Baltimore building, but it is none the less a very honest and excellent piece of ar-



SECOND FLOOR PLAN OF THE BELLEVUE-STRATFORD HOTEL.
Philadelphia, Pa. G. W. & W. D. Hewitt, Architects.

up with restaurants. To the right of the entrance is a large cafe, furnished like all cafes in dark wood, and effective chiefly because of its ample dimensions. On the left is the main dining room, for both ladies and gentlemen, which is rather a dreary room, in spite of its marble columns. The most successful

architectural design. It is approached from the main hall through what presumably is a tea-room, and its novelty consists in the way its walls are hung with leaves and greens. The Belvidere has a lattice without any vines, while the Bellevue-Stratford has vines (as it were) without any lattice. There are

various ways, you see, of obtaining an out-of-door effect in a restaurant, and one of the best of all is the sound of running water, as in the Hotel Astor. One way is not as good as another, but that of the Bellevue-Stratford is good enough. The walls are finished in Caen stone, which makes an excellent background for the greens, and the ceiling, instead of being composed of stained glass, as usual, is also finished with shallow vaults of the same stone. The effect

is not improved by the carpeted floor, but altogether the room is very successful, and seems to be as popular as its more magnificent neighbors. The palm-rooms of our American hotels are coming to be their most interesting feature, largely because, doubtless, their architects have an opportunity in these rooms to break away from the convention that a hotel must be splendid at every opportunity and any cost.

A. C. David.



SITTING-ROOM IN THE BELLEVUE-STRATFORD HOTEL.

Philadelphia, Pa.

G. W. & W. D. Hewitt, Architects.

The Appreciation of Sculpture.*

By RUSSELL STURGIS.

That a just appreciation of the finer things in the fine arts may be taught to the unlearned, as may other branches of human culture, is not yet proven;—Mr. Sturgis seems to be even less disposed to make such a statement in his present work than in his somewhat similar one: "How to Judge Architecture," and he is here much less positive in his condemnation of certain qualities in certain works as bad. Mr. H. R. Poore, A. N. A., Mr. John Van Dyke and some others have set out to tell us how to judge paintings; and, on the other hand, there are those who dogmatically maintain that it is necessary to be born in the faith. (It must be said that the strongest disproofs of the latter statement are sometimes furnished by the practicing painters themselves.) If we become involved in these discussions, we may readily arrive at the old conclusion, that, for entirely different reasons, painting and sculpture are more apt than architecture to take hold of the popular attention, and thus secure the greater popular appreciation. If we imagine a large public building in a metropolis having at its portal some imposing decorative sculptural figure on a column or a tall pedestal, and, exposed in a large window or attracting attention in a painted frieze across the façade itself, a large painting displaying large and well-ordered forms and broad masses of positive colors, such as reds and blues and rich browns, it is quite possible that even on a sunny day most of the pedestrians would stop to look at the picture first, and then at the figure on his pedestal or the lion on his column. In the average gray or dark street wall the sudden burst of color is naturally the most startling and attractive for the general public, and a row of picture dealers' windows would be

more difficult to pass without halting than a row of sculptors', if there were such a thing, and much more so than the usual row of architectural triumphs. The picture appeals to the average gazer in half a dozen ways that the other forms of art do not,—in its more faithful reproduction of our little world of personages and actions, in its story-telling qualities, in the aforesaid charm of color, etc. Hence there are many methods by which its good qualities may be demonstrated to be better than other qualities that are, or might be, in other pictures,—the greater naturalness or grace of its actions, the greater truthfulness of its colors (not always), even the greater charm or dignity of the composition as a whole, even—possibly the better artistic worth, which the demonstrator or the pupil might be conscious of without being able to put in words. "The charm of his work," says Mr. Sturgis, speaking of the sculptor Mino da Fiesole, and this is as true of one art as of the other, "is not to be explained by any words which the language supplies, nor has that grace ever found expression or explanation apart from its own chosen medium." Of the two arts having the greater attraction for the populace, the principles of painting may thus be the better exhibited and explained to beginners; while the third, architecture, having in its essence less of the impalpable and more of *Vignola*, may be the most of all capable of being instilled into the uncouth!

However this may all be, in the present work a certain insistence and enthusiasm along given lines may be noticed, the maintenance of a certain atmosphere or standard—strayings and departures from which are reprehended, even when a very good apology for the vagation may be recognized. The exist-

*A book by Russell Sturgis. Published by The Baker & Taylor Company, New York.



FIG. 1.—SLABS OF THE CELLA FRIEZE OF THE PARTHENON.
WORK OF ABOUT 430 B. C.



FIG. 2B.—RELIEF, A DANCER, FOUND IN THEATRE OF
DIONYSOS, ATHENS.



FIG. 2A.—GRAVE STELE IN CENTRAL MUSEUM, AT ATHENS
ABOUT 375 B. C.

ing examples of the very best work, the universally recognized standards of technical and artistic superiority, are given at length (and in sculpture this can be done much more definitely than in painting); the list, and the gradations in value, of the most perfect works of antique Greek sculpture now known, beginning on page 15, will be an enlightenment even to those of us who were aware that the Apollo Belvedere and the Venus de Medici were no longer considered to be the supreme examples. No longer, owing largely to the researches and discoveries between 1860 and 1900, must our ideas of antique sculpture be derived from the great collections of the Louvre and the Vatican, "collections of such marked inferiority as to relief sculpture that a piece of pure Greek work in one of these long galleries may strike one with astonishment as he passes rapidly by the great array of Greco-Roman copies." With these high standards, set at the beginning, there is a constant comparison, stated or suggested,—all possible allowances being made for other influences, traditions, disabilities, fears, hopes and negations. It is by these more subtle methods of induction and suggestion that the didactic purposes of the book are carried out.

The author thinks sculpture to be the most sensitive of the arts, the most easily lost and the most difficult to recover, notwithstanding the fact that it is based upon the study of nature, or, rather, in the higher types, as the Greek, upon the careful study of nature supplementing certain artistic conventions, "the hierarchic standard, if you please;"—this standard itself changing at different epochs through a changing of tradition, usually following the influence of some great master. We are referred to half a dozen of the most illustrious examples of the art, ancient and modern, "to learn how much sculpture owes to those conventions which separate her creations from the works of nature which have been her inspiration." Even in the periods of the most depressed national character there remains much sense of the value of color and of deco-

orative pattern; as civilization revives, this ornamentation of buildings and utensils gains in elaboration and in artistic interest. But in the rendering of solid form, the disability of the epoch becomes evident, and the modern student finds only the traces of an art perishing with the highest examples of its achievements before its eyes. "Never has there been a time when sculpture was conscious re-study of the past," and this is true as affecting the general practice of the art, though there has been a great deal of slavish attempt to re-create the Greek, and sometimes by those high in authority, as Thorwaldsen.

The great fundamental doctrine, that Art is sufficient unto itself, in sculpture as in other forms, is asserted with refreshing vehemence, early laid down and stoutly maintained. "The public must learn that only artistic work is to be had from an artist, and must really stop asking him for moral teaching, and archæological information, and general exhortation." "The question for the sculptor himself is, not how he is to express a certain epoch, a certain race of men, a certain sentiment,—not so much these or any of them, as, How to produce a beautiful work of art. Whatever the historical, or associated, or ethnological, thought in the sculptor's mind may have been, it disappears when the work is in hand, leaving nothing to occupy the artist's thought except the production of a noble work of art. If it be not so—if ethnology, or history, or religious enthusiasm, or patriotic excitement, sway him too far, the work of art is certain to suffer by the substitution of the foreign set of thoughts for those which appertain to sculpture alone." So single is the unity of aim inculcated that the theme proposed here is, sculpture for itself, sculpture for sculpture's sake, leaving outside all reference to the decorative side of sculpture, with its surroundings of masses organized and unorganized, all connection of architecture with sculpture, monumental effects, etc. This, however, has been found scarcely practicable, and in the division of the book devoted to Recent Art the sculpture of



FIG. 3.—ONE OF THE CARYATIDES OF THE ERECHTHEION.
ABOUT 380 B. C.

the day is divided into three sections: First, sculpture of pure form, such as seems to be undertaken with constant thought of Greco-Roman work; Second, sculpture of sentiment, a peculiarly modern product, and therefore of particular importance in the cases where it remains sculptural; and Third, sculpture used for immediate decorative purposes. In all these, as was to be expected, there arise numerous instances in which the art seems to forsake its single high mission and be perverted to other uses, more or less legitimate.

In two of the most celebrated examples of contemporary American monumental sculpture, Mr. St. Gaudens' alto-relief of Col. Shaw and his negro regiment on Boston Common, and his statue of Gen. Sherman in New York City, there arise apparent conflicts between the eternal verities and the spirit of these particular works which may puzzle us, but not Mr. Sturgis. Both of them suffer, he says, as works of "pure form," and therefore as examples of noble statuary, by the popular message they convey,—the Shaw monument would look better as a woodcut on a magazine page, he thinks. But, apart from the question of what pure form the sculptor could have given us in these cases, other (in principle, at least) than the very carefully selected and wrought out conventionalized-natural ones which he has (are there not the stories of the numerous heads of the negro soldiers, so carefully selected from the best types in the streets, so carefully executed, and then rejected when put in place because in that particular place they were not the type there required, and that of the branch of Southern pine (is it?) under Sherman's horse's feet, rejected, redesigned and recast at the last moment?),—apart from this question of form, how would the monument justify itself, its particular mission, if it were only "this new combination of masses beautifully composed, made up of details beautifully modeled"? So, while it is possibly quite true that "the artistic charm" of the Venus of Milo would not be "enhanced" if we had her in complete preservation and knew all that the

artist intended to convey by her, why, after all, are not the "historical, or literary, or mythological, or sentimental," questions that we raise pertinent to the goddess and to any artistic representation of her complex and wonderful personality,—part even of that very complex thing, the art of sculpture itself, which in this case undertakes to personify her in form? If neither the sculptor nor we have any ideas whatever concerning her, save that she was beautiful, how poverty-stricken becomes our art.

Such idealizing as the symbolic and decorative pedestal of St. Gaudens' "Farragut" in Madison Square Mr. Sturgis accepts; he questions, very justly it seems to us, the tendency of the modern realistic sculptor to proclaim his technical knowledge in life-size or heroic anatomical demonstrations of the struggling and laboring human form, carried out with an infinity of purely scientific detail that the Greek would never have considered; he has also serious doubts, naturally, as to the advisability of forcing the art of the sculptor out of its true path into that which the painter sometimes takes, the finding a theme in an excess of sympathy, sorrow, or pathos, or the dull misery of the poor, as they do so much in certain ateliers in France and Belgium. He even courageously takes a stand against the treatment, in monumental work, of inferior types of men and animals, the production of the artist in his work of "that which is less than perfectly matured, or perfectly composed, or perfectly developed," being, "in a sense, the forcing of the artistic thought away from its due severity of concentration,"—citing one of the most worthy examples, the "Indian Hunter" of Mr. Ward in Central Park, this city. The rise of the animal sculptor proper, especially in France and the United States, may be said to be one of the features of the contemporary art; of the active, struggling wild animals of Barye and Caïn (as in so many other cases), the answer to the grave academic question: "Is this a sculptural theme?" is: "Yes, on the scale of the parlor orna-



FIG. 4.—CHARTRES CATHEDRAL. WEST FRONT. PART OF THE SOUTH JAMB OF THE MIDDLE DOORWAY.



FIG. 5.—SCULPTURES IN THE SOUTH TRANSEPT OF THE ABBEY CHURCH, AT SOLESMES (SARTHE). UNKNOWN ARTISTS. CLOSE OF 15TH CENTURY.



FIG. 6.—BRONZE STATUE OF MICHELANGELO.
Library of Congress, Washington, D. C.



Paul Wayland Bartlett, Sculptor.



FIG. 7.—MONUMENT TO THE ADMIRAL GASPARD DE COLIGNY.
In the Apse of the Oratoire, Paris.

Crank, Sculptor.



FIG. 8.—PORTRAIT BUST OF THE PAINTER JEAN LÉON GÉRÔME.
J. B. Carpeaux, Sculptor.

ment." The propriety of the introduction of these vivid groups of animal greed and murder on a colossal scale in such pleasure places as the terraces of the Louvre and the Luxembourg might have been strongly condemned. When contributing their grave and impassive figures as sculptural detail of the architecture of their respective stately "houses" in the Bronx Zoological Park, these animal forms, however, take on the value of a new development of an art. Another manifestation of the contemporary national art of which Mr. Sturgis does not speak, the "cowboy groups," seems to come under the parlor ornament restriction,—very well worth doing, if done well, if not too big.

As especially exemplifying contemporary American monumental art in which there may be a suspicion of that dangerous thing, sentiment, there is illustrated the monument by D. C. French, erected in Boston, in honor of John Boyle O'Reilly, rather than the sculptor's more popular "Death and the Sculptor," or than the more intimate "Gallaudet Teaching the Deaf Mute,"—the latter being, to our mind, the most successful example of the instilling of a delicate and charming sentiment into the "pure form" of the sculptor's work in all Mr. French's production. Of the entirely mystical and imaginary sculptors, the author mentions Mr. Barnard, though he considers his huge "Hewer" as "engaged in an occupation of our own time;" his scope and his space do not permit of allusion to some of the very few elders who, like Mr. Theo. Bauer, have not only seen visions, but occasionally perpetuated them, nor to the one or two more pretentious younger ones whose deeply suggestive themes, when carried out, are so apt to carry the primal curse of

ugliness. An interesting comparison is presented between the ambitious relief, "The Army," by Mac Monnies, on the Memorial Arch in Brooklyn, and the famous group by Rude on the Paris Arc de l'Etoile; Mr. Ward's seated statue of Horace Greeley in front of the Tribune office, New York, is justly cited as one of the most successful examples of modern portraiture in statuary struggling against almost impossible obstacles; and Paul Bartlett's statue of Michelangelo, the illustrations showing the remarkably lifelike and expressive back, as an example of sculpture connecting in a curious way the study of beautiful or interesting form, suggestive in itself, with our historical reminiscences and our personal affinities. But with the important question of associated sculpture in the adornment of large buildings, the depressing conclusion is reached that "the influences upon architect and sculptor are in our own time contradictory and irreconcilable." Largely through lack of opportunity, the conditions of architectural sculpture are ignored and misunderstood; the few examples which the author is able to cite fail on one side or the other, either the sculpture is inferior as sculpture or it lacks in decorative fitness, so that "we do not know which way to turn when we want architectural sculpture." In the art as a whole, it is toward some such manifestation as that of the Roman Imperial sculpture of the second century A. D. that he thinks our twentieth-century thinking and striving would tend, "but that the sculptors of our time form a really noble guild of artists, inspired continually by the study of nature and guided by the most constant and most intelligent intercourse with the great past."

Wm. Walton.

The Schoenhofen Brewery.

"The best hope for our architectural future lies in our non-architectural buildings." That has been thought a safe proposition. Still, however, we must agree upon the definition of the term "non-architectural," for if architecture means the making a building interesting and worthy of study without, then these factories and warehouses which the Record has considered already (see January and February numbers, 1904, and see also certain paragraphs in the department "Notes and Queries"), and such a building as the Schoenhofen brewery are architectural enough. But, indeed, we require a special term, a phrase born of the architectural schools, made for the use of their graduates, applying to the kind of design which they inculcate, expressing the two-century-old notion of a building with all its details taken out of accepted books and put together according to accepted rules.

No school of architecture can teach a man how to design such buildings as this brewery. At least, if there be any school of architecture of that stamp, it should really proclaim itself—its power of inspiring liberal and practical ideas in the youthful mind should be widely advertised. As things are, we dread the going of a student to an architectural school, and we dread accepting him as an assistant when he leaves that school; and this because of the perfunctory nature of what he learns there. No blame to anyone! He would be a bold professor of architecture who would try and lead his boys to the designing of things according to the requirements of the situation.

How large a proportional amount of time is given, in each student's three years or four years of study to the orders! The Five Orders, partly Roman, partly Romanized Greek, partly of sixteenth century perfecting in the hands of able Post-Renaissance architects; how many months of time go to

the learning by heart of those columns and capitals in all their parts and in the mastering of the minutest details of the entablature? And of how much use is that learning in our ordinary building of today? If a man has a great library to build, or a state house, perhaps he may indeed persuade the committee that, in addition to their stack-room and their reading-room—their huge legislative chambers and their smaller committee rooms, they need a great portico, or two or three great porticos, too high and too open to afford any shelter, and a tremendous flight of marble steps besides, exposed to all the winds that blow, and costing a hundred dollars in snow shoveling every winter. It can be demonstrated to such committees that they will not be happy in their future lives if they refuse such luxuries as these, because, indeed, the town, or the vague thing known as the community, is supposed to expect such luxuries—though in what way it enjoys them is not yet manifested. But when there is a building in which the owners alone are concerned, and their own private notions of how to please the community, it is very noticeable that the Orders are less in evidence.

And so, not to insist too much upon a theme often enough discussed, it will be well to point out some of the interesting features of the building already mentioned, as shown in Figs. 1, 2, 3, 4. The first of these illustrations, a block plan, shows how a very sharp-cornered plot of ground in Chicago is bounded by Canalport avenue and Seward street, the sharp angle reaching, and just reaching, Eighteenth street, so that where that angle is cut off leaving a narrow façade, shown in Fig. 2, the building just misses the street line of the numbered street.

The building which these figures show, and which is highly interesting in its unusual scheme of design, is divisible into two main portions—the hop

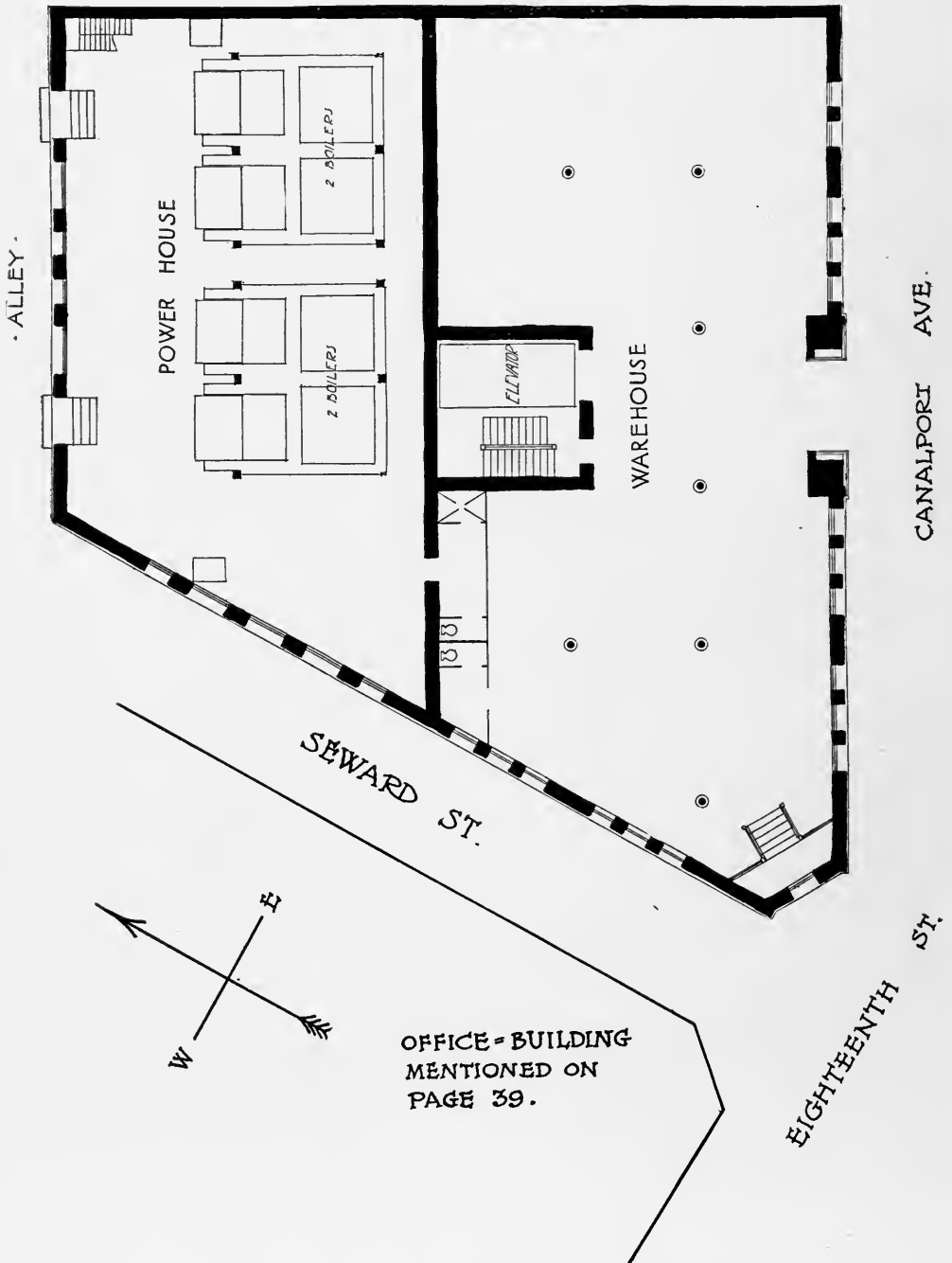


FIG. 1. PLAN OF THE SCHOENHOFEN BREWERY.

Richard E. Schmidt, Architect.



FIG. 2.—THE SCHOENHOFEN BREWERY.

Chicago, Ill.

Richard E. Schmidt, Architect.



FIG. 3.—THE SCHOENHOFEN BREWERY.

Chicago, Ill.

Richard E. Schmidt, Architect.

storage warehouse, which has a front on Canalport avenue (see Fig. 3) and of which the square tower forms a part, and the boiler house, shown on Seward street, and marked by the 7-fold group of windows above and the 5-fold group below, from which rises the lofty metal steel stack, the round stovepipe which outreaches the masonry tower. The building, of which a small detail is seen on the left in Fig. 2, and which is seen nearly complete on the left in Fig. 3, is occupied by the offices of this same brewery, "the Peter Schoenhofen Brewing Co.," but that building is of no architectural importance. Other buildings occupied by the brewery are gathered about, as it appears that large tracts of ground are occupied by these workshops and storage houses; but, again, they are outside of our present question.

The building we are concerned with is faced with peculiarly hard-burned brick, made in a common brick-making machine and piled in the kiln with layers of sand so that a roughened surface results. The edges of each brick are slightly rounded in the process of manufacture. When laid up, the familiar American bond is used, five courses of stretchers to one of headers, the headers being used to bond the facing to the main wall; and the bricks that form the heading courses are notable in that the ends of the bricks show rougher than the sides of the stretchers, because they have been wire-cut, as is explained; though the roughness thus produced is different in character from the sand-finish of the facing generally. In the photograph of the Seward street front (Fig. 2) these header courses tell as decided bands of a different tint. The stone facing of the basement where it shows in the piers between windows and in the longer unbroken base course on the Seward street front, and the narrow ends of the building, is "blue Bedford stone," the color of which, unfamiliar to many of our readers as it will be, is explained to be lighter than that of North River blue stone, as seen in the flags of New York City sidewalks where they are the most carefully

chosen—as being, in short, the blue cast of Indiana limestone. The same stone is used for the rather large frontispiece in which a great round-headed doorway is pierced in the middle of the Canalport avenue front, Fig. 3 (and see details, Fig. 4). The sign over the doorway is cut in that same stone, the relief of the letters and the border of this being a little less pronounced than the relief of the narrow band within and the wider band without, which form the only architectural casing of this bit of smooth stonework. The voussoirs of the arch are carried through from the intrados to the inside of the square frame, so that some of them are six and seven feet long, and this seems an unnecessary gratification of a whim. Why, however, should not an architect, especially one who has and acts upon original and worthy ideas as to planning, have some whimsical fancies of his own, the gratification of which is more likely to help than to hinder the resulting effect of his work?

Examining the design in some detail, one is led to accept with the greatest satisfaction the absence of the eave-cornice, the overhang, the broad-brimmed hat which builders even of our sky-scrapers inflict upon their buildings when there is really no practical and no architectural need for them. The exact significance of the ridges which break the blocking course at the top of this wall is this: There is no gutter behind it, but a secure flat roof, and the parapet is solid and continuous, built of terra cotta blocks, the vertical joints between which are protected from the weather and disguised architecturally in the way shown. The broken edges of the mullions in the tall windows, where common bricks without any cast moulding at all are used, give an excellent, simple effect of light and shade by their mere contrast of in and out, long and short, light and dark—a contrast of which the eye never wearies.

The square tower which contains stairs and an elevator, with "sprinkler tank" and a large water tank, partly for the brewery and partly for use in the case of possible fire in the building,



FIG. 4.—ENTRANCE TO THE SCHOENHOFEN BREWERY.

Chicago, Ill.

Richard E. Schmidt, Architect.

could not well have been set flush with one of the street fronts; so much is evident enough from the block plan and from our sense of how the tower is to be used; and yet a serious loss to its effectiveness coming of its start from the flat roof instead of from the pavement, is a thing to be admitted. That is not an architectural solecism; the requirements were those, nor could the architect have done otherwise than meet them.

Now to consider the treatment of each façade as a framed-in entity, a square, flat surface designed by itself. This is a matter of judgment, a matter of opinion, upon which students of the art may differ; and to this present writer it seems that a great chance was missed when the horizontal lines above the windows and parallel with the cornice were returned vertically downward, instead of being carried round the corner to the adjacent façade. It seems that something is needed to tie the building together; horizontal lines of light and shade; and the vertical stripes of light and shade kept subordinate when they do not mark constructional members. And yet when one looks at the view, Fig 2, and sees the spirited effect of the narrow façade as it stands, offering all who pass by about the best suggestion for the design of a narrow city house that one will meet with in the course of a long day, the peculiarity here insisted on appears of less consequence.

"Of less consequence"; yes, we must receive such designs as this in the way that we receive vigorous works of the archaic period. The buildings of an admittedly early time, of a time before the great period of any national style, we judge by a different standard from that which we apply to the works of the great period itself; and so it must be hereafter with the thoughtful buildings of the nineteenth century and the first two or three decades of the twentieth century at least. The original-minded ar-

chitect who is thinking for himself, and means something, cannot hope for a brilliant and final success; he must needs ply his difficult task in spite of discouragements, in spite of general lack of sympathy on the part of his neighbors, happy in the exercise of his own talent and the expression of his own thought, and in the hope of better things to come. He may even live to see the better things to come.

Now, I have always abhorred that common method of interior decoration which assumes that each wall is one great panel, surrounded by a frame—two frames meeting edge to edge at the corner. It seems to give a look as if the four walls might easily fall apart. The same remark seems to apply to such exterior designs as this. In Fig. 2 there seems to be a tendency for that whole façade, with all its variety and all its solidity, to split off at its two edges and fall into Seward street. I feel an eager desire to build, or even to paint, a series of horizontal bands of some kind which shall pass continuously about the building and tie it together. But it need hardly be said that another student of architecture will care less for that motive; and, indeed, it is one advantage in using the first person in such writing as this, that by that means the writer may more easily make clear what is avowedly his own opinion—his own preference—and that which is an accepted verity. So in the case before us, there can be no doubt that the most essential characteristics of a good modern industrial building are here, shown in the design, already dwelt upon and urged in the paragraphs above; while yet it is worth suggesting to all students that some of the traditional virtues of architecture are worth preserving and that one of them is the constant presence of strongly marked structural lines, especially in the way of continued horizontal bands forming part of the design.

Russell Sturgis.



FIG. 1.—THE DOORWAY FOR THE MILWAUKEE GAS LIGHT CO.
Milwaukee, Wisconsin. Alexander C. Eschweiler, Architect.

The Work of Alexander C. Eschweiler.

MILWAUKEE, WISCONSIN.

In the full foliage of summer, with its neatly kept, elm-arched streets, sunny grass plots, bright flower-beds and vistas ending in the delicate blue waters of the lake—a town almost entirely of detached houses, with a general air of

along with no end of aberrations nondescript of the last five and twenty years. Even to-day fearful and wonderful vagaries are still turned out; and one can pick out here and there but a comparatively small number of houses



FIG. 2. RESIDENCE OF DR. JOHN S. BATCHELOR.

Milwaukee, Wisconsin.

Alexander C. Eschweiler, Architect.

thrift and diffused prosperity—Milwaukee is perhaps as pretty, certainly as pleasant, a city as any of its size in the country. Yet a critical eye curious for architecture behind the elms and maples might be disappointed to find only plain, unpretentious, old-fashioned houses

of coherent style and literate form, which would be mostly the product of the last decade. The city has not so many costly houses as Buffalo, Cleveland, or Minneapolis even, for wealth has been acquired gradually, and as means increased, the older residents, in

the conservative spirit of the place, have chosen to enlarge and do over their old houses rather than abandon them to build pretentious palaces in new neighborhoods. As a matter of fact, display has been a small factor in the social life of the place. Wealth has brought comfort and considerable quiet elegance, but the well-to-do have not aimed to live their lives in public.

The cream-colored brick in which the city at one time took especial pride, has

brown, red or pink brick of other localities is imported.

The conditions, under which an architect works, in what for a better term we may call, the provincial cities, must be remembered when we come to judge his work. He has not the opportunities to profit by his own successes or mistakes that come to a metropolitan architect. The latter will have ten commissions of one type, where the former may have two, and he lives in a critical and



FIG. 3.—RESIDENCE OF MR. CLEMENT C. SMITH.

Milwaukee, Wisconsin.

A. C. Eschweiler, Architect.

fallen into disfavor; and justly enough, for in color it is thin and cold, with no value except perhaps in contrast with new-fallen snow. It is particularly ugly in its cheap, rough grades, as used in blank party walls and on inferior buildings, where it turns, when stained with soot and weather, to a dreary, sickly, streaked gray—as utterly a forlorn building material as can be imagined. For all the better class of work nowadays the

appreciative atmosphere of fellow workers, with a large and more exacting clientèle of cultivated persons, which makes all the difference in the world in keeping up and developing a man's æsthetic standard. When he comes from the schools, an architect is bent upon being an artist; that side of his profession is of foremost importance; but the exigencies of business, the pressure of self-support, the necessity of



FIG. 4.—HALLWAY IN THE RESIDENCE OF CLEMENT C. SMITH, ESQ.
Milwaukee, Wisconsin.

Alexander C. Eschweiler, Architect.



FIG. 5.—DINING-ROOM OF THE COTTRIL RESIDENCE.
Alexander C. Eschweiler, Architect.
Milwaukee, Wisconsin.

making money, are apt to relegate art to a second place. The primary requisite is to get work and to satisfy clients. If art is demanded, so much the better.

Though environment must count greatly in the development of a man's taste and style, it is easy to over-estimate it, for in the diffusion of photographs and journals the world is nowadays an architect's real environment, and the West is next door to the East. Give a man a chance anywhere to design anything from a summer cottage up,

of the individual architect expresses his taste primarily, and not that of his clients.

Among the group of Milwaukee architects capable of good things as opportunity offers, Mr. Alexander C. Eschweiler has done some of the most interesting work in the city, especially in residences. His warmest sympathy is quite apparently for the early English styles, and in those his most important houses have been designed. If he could always do as he liked he



FIG. 6.—THE HOUSES OF MR. CLARENCE FALK AND JUDGE CARPENTER.
Milwaukee, Wisconsin. Alexander C. Eschweiler, Architect.

and he is bound to show what is in him of taste and training; and by the same diffusion of pictures and magazines his clients will be quick to "catch on" to the best he can give them. It is rare that an architect is compelled to design down to his client; it is rather that he will turn out hurried and unstudied work because he thinks that his client will not know the difference. The general aspects of a city, no doubt, do express the average culture of the place, but the work

would probably turn to those styles for inspiration for all his domestic work, though whether to the improvement of his art or not, would be a question.

We are prone to deplore eclecticism in art, but in architecture, which is more impersonal than the other arts, mixed largely with practical considerations, and necessarily dependent on traditional forms, a designer, unless he is of marked personal genius with a passionate bent in one direction, is apt to profit



FIG. 7. THE HOUSE OF MR. A. S. GOODRICH.

The Living-Room and the Exterior.

Milwaukee, Wisconsin.

Alexander C. Eschweiler, Architect.

by the study and practice of different styles. The cool, reposeful classic forms, where delicate proportion and balance with refinement of detail, are everything, and for the understanding and appreciation of which a thoroughly cultivated taste is imperative, are a splendid check on looseness and vagaries, when one turns to more individual and picturesque expression. After conscientious study on an Italian,

out is a small Colonial house, where he selected the style from necessity, not from choice. Everything about the house is pleasing and eminently livable. It is just what it pretends to be; a moderate-sized, inexpensive home for persons of cultivated taste; simple, plain, unaffected, with no unserviceable feature as a sacrifice to style; charming for that reason, and quite as appropriate in a western city as in Portland or Provi-



FIG. 3.—THE HOUSE OF MR. A. L. KERN.

Milwaukee, Wisconsin.

Alexander C. Eschweiler, Architect.

Georgian or Colonial house, one is more apt to get hold of the best qualities of the more sentimental Elizabethan or Jacobean styles, or those of the French châteaux, where also symmetry balance and proportion are primary elements of good composition.

One of Mr. Eschweiler's very successful pieces of work (Fig. 3), in which scrupulous refinement is shown through-

dence, because it is a satisfactory answer to just demands—exactly what good architecture should be. In fact, real success in architecture never comes except where the architect keeps his attention on the human problem, rather than on what he fancies are the artistic demands, the exigencies of style. Every building has to be studied first in its relations to the particular human needs

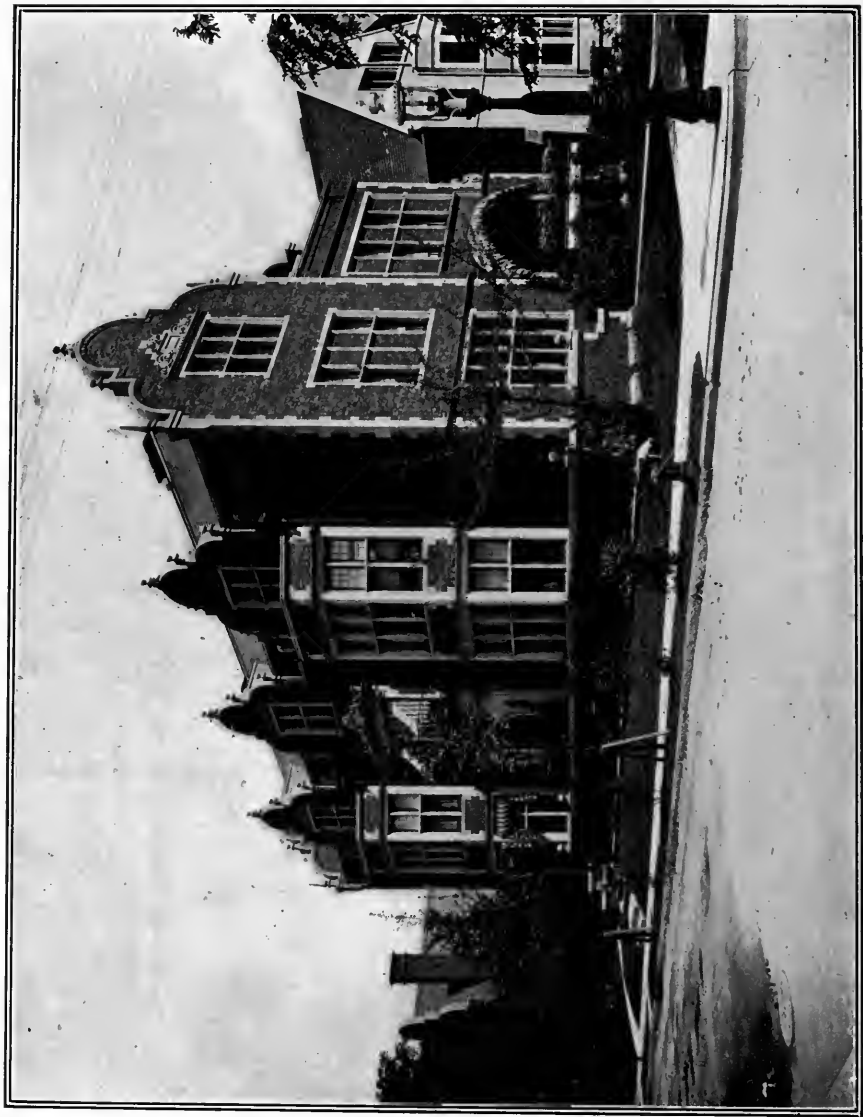


FIG. 9.—THE S. E. ELEVATION OF THE BLACK RESIDENCE.
Alexander C. Eschweiler, Architect.
Milwaukee, Wisconsin.

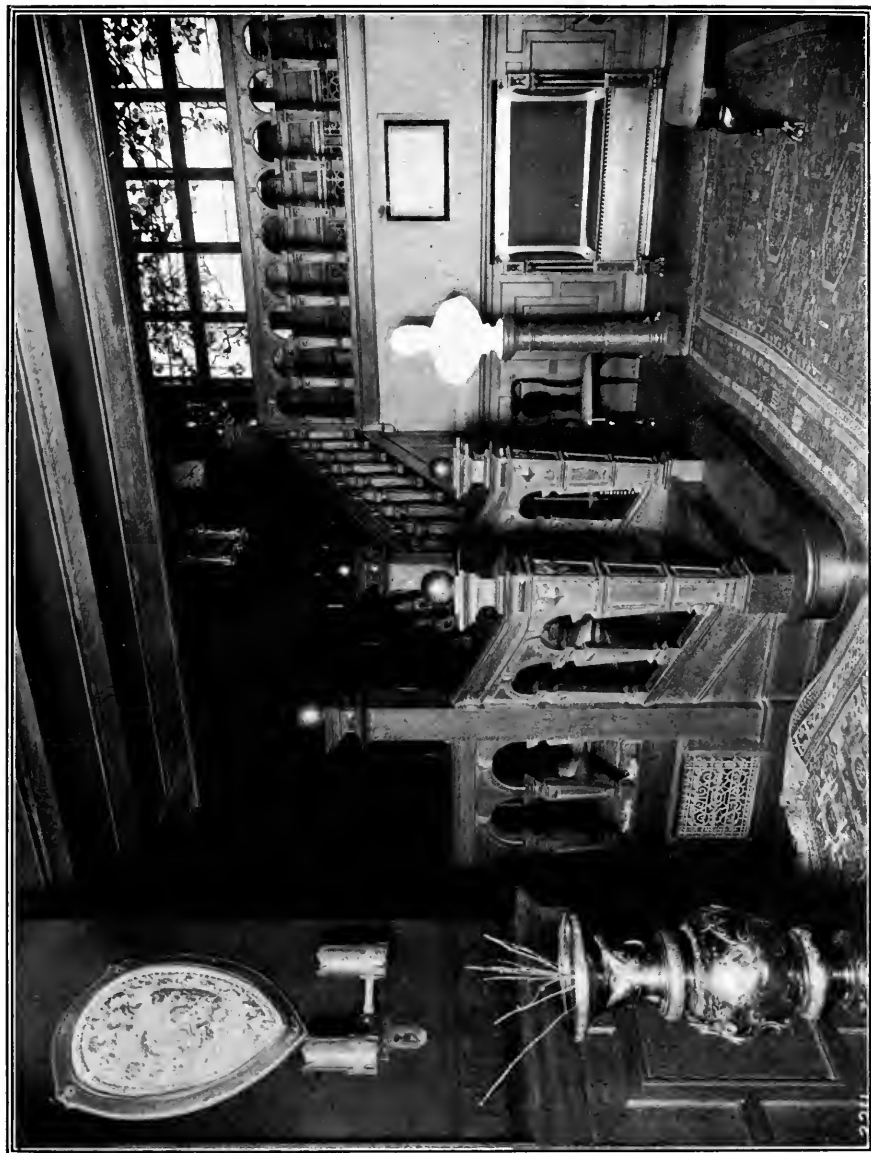


FIG. 10.—HALL OF THE BLACK RESIDENCE.

Alexander C. Eschweiler, Architect.

Milwaukee, Wisconsin.



FIG. 11.—DINING-ROOM OF THE BLACK RESIDENCE.
Alexander C. Eschweiler, Architect.
Milwaukee, Wisconsin.



FIG. 12.—THE HOUSE OF MR. FERDINAND SCHLESINGER.
Alexander C. Eschweiler, Architect.

Milwaukee, Wisconsin.



FIG. 13.—SOUTH PORCH OF THE SCHLESINGER HOUSE.

Milwaukee, Wisconsin.

Alexander C. Eschweiler, Architect.

involved, whether it be a court-house, cathedral or laborer's cottage, and—as it answers and expresses those needs in a manner that gives pleasure, it is in proportion good architecture.

The house for Miss Black (Fig. 9) is perhaps Mr. Eschweiler's most picturesque achievement. It is excellent in color, a deep purplish red paving brick, with gray Bedford stone trimmings. It is pleasing to see a balanced composition again. Western architects have for so long scorned symmetry and balance that now when the newer men are returning to those old primary notes of design, they strike one with the force of novelty, and lend a picturesqueness, if picturesqueness is used in the sense of having the qualities that please in a picture, much more rememberable than the haphazard, lop-sided jumbles that have posed as picturesque. A good feature of this house is the way in which

the stable is connected with the house by a wall and is made to take a part in the general composition; and another pretty feature is the tower for the back stairs. It is rather a pity that the entrance steps could not have been developed more simply, but this is a case like the Fifth avenue corners in New York City, where the entrances are on the side street. Here the house is supposed to face the avenue on the right to which the terrace leads, and not the cross street on which the door opens. In his devotion to the English style the architect would often like his American clients to get along without a porch or shelter over the front door, but to this proposal they very sensibly object, because a shelter at the entrance is an altogether reasonable and comfortable feature, and can be made highly ornamental. In this case the designer has had his own way, and artistically to good

effect, considering the large projecting windows in close proximity on either side; and he has made a richly ornamental feature of his doorway by carrying it up two stories, and including the second-story windows in the composition. The panel-work and staircase of the hall are discreet and dignified, and perhaps more pleasing than the elaborate balustrade in strap work of another house in an early English style. As Mr. Cram said recently in this magazine, "Too often the ornament of Tudor, Elizabethan and Jacobean architecture is peculiarly ugly, tainted as it is by debased influences from Germany," and it is in this particular detail of Jacobean ornament, it seems to us that Mr. Eschweiler has been least successful. Though a general effect of richness is obtained, and though he may have precedents for some of the work, the precedents were not choice

enough to follow, and the ornament does not give pleasure in itself when studied.

The large gray stone house with red tile roof for Mr. Schlesinger (Fig. 12), also has the charm of simplicity and symmetry in its façade. After seeing it once you can carry away a picture of it in your mind—the first quality of good design, as, of course, it is a possibility of the ugliest work; but anything so complicated, so vague or confused as to leave only a blurred mental picture can not be good. This house has notable dignity and repose, and with its quiet broad spaces of blank wall, rare in a modern dwelling, and its long, unbroken ridge, it stands there as if it were meant to last. Here there was sufficient room between the projecting members to allow of a porch, which has been made an imposing feature, and is an admirable bit of design, introducing curved lines



FIG. 14.—THE HALL OF THE SCHLESINGER HOUSE.

Milwaukee, Wisconsin.

Alexander C. Eschweiler, Architect.

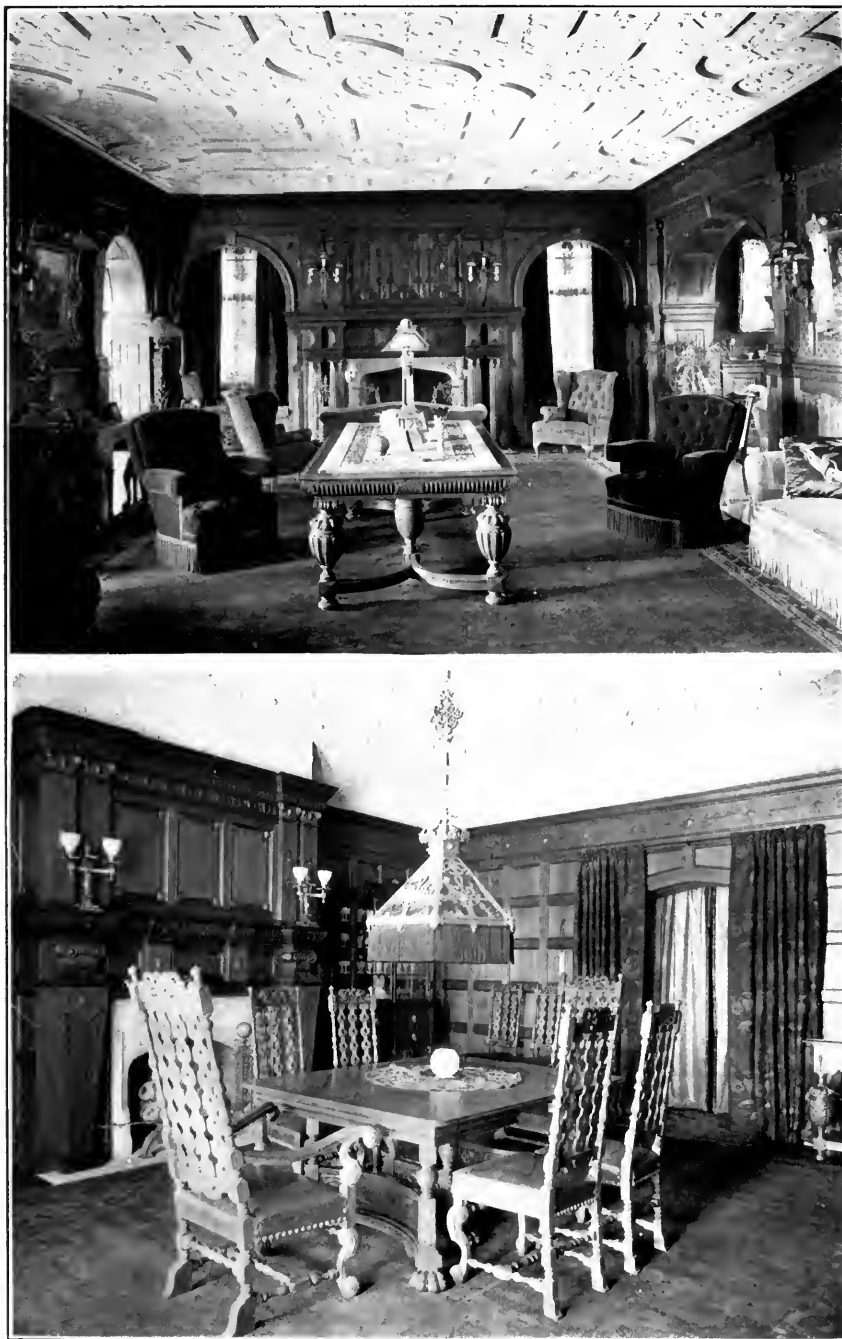


FIG. 16.—LIVING-ROOM AND DINING-ROOM IN THE SCHLESINGER HOUSE.
Milwaukee, Wisconsin. Alexander C. Eschweiler, Architect.



FIG. 17.—THE HOUSE OF MR. WILLIAM BIGELOW.
Milwaukee, Wisconsin. Alexander C. Eschweiler, Architect.

before the carved entrances, and when the figures in the pediments, sunning themselves in the quiet street, do not seem so absurd as when one snatches a hurried glance at their bare legs from the jostling throng in a nipping November breeze. The deep, intricate ornament around the window over this entrance to the Gas Light Company is not in keeping with the flat, reticent and

better if the middle gable had been left out. The treatment of porch and windows is excellent.

The summer cottage for Mr. Sherburn Becker, in the chalet style, is successful in color and texture, with a beautiful roof of the extra heavy, specially split shingles. On the very edge of a bluff it is a most appropriate design, and it is pretty in every respect.



FIG. 18.—DOWNER COLLEGE.

Milwaukee, Wisconsin.

Alexander C. Eschweiler, Architect.

chaste patterns of the door and the square windows, which for a down-town building, liable to soot and dust, are particularly appropriate, though they would be good anywhere.

Both the houses in Fig. 6 are Mr. Eschweiler's; the one to the right a rather austere red brick house of modified English type; the one to the left a happy example of the shingled cottage.

Fig. 22 is a fairly successful small red brick house that would have been

Milwaukee Downer College owes much to the taste of Mr. Eschweiler, who has designed most of the buildings. They are grouped about three sides of a court, and new buildings are added symmetrically in the rear. Fig. 18 shows one of the dormitories, a pleasing and straightforward piece of work.

The Catholic church in Racine is worthy of study as a solution of the common problem of building a church for a strictly limited sum of money. Mr.



FIG. 19.—ST. ROSE'S CHURCH.

Racine, Wisconsin.

Alexander C. Eschweiler, Architect.

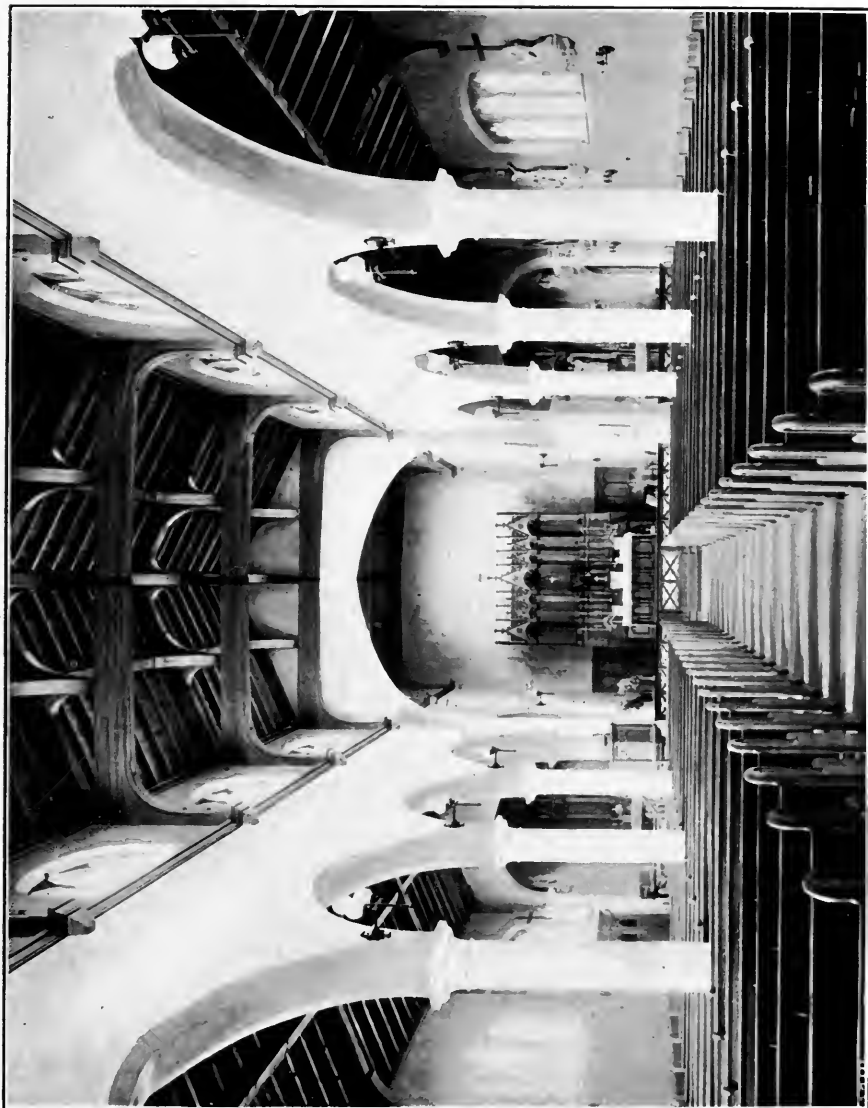


FIG. 20.—ST. ROSE'S CHURCH.

Racine, Wisconsin.

Alexander C. Eschweiler, Architect



FIG. 21.—THE HOUSE OF MR. SHERBURN BECKER.

Fox Point, Wisconsin.

Alexander C. Eschweiler, Architect.



ENTRANCE OF BLACK RESIDENCE.

Milwaukee, Wisconsin.

Alexander C. Eschweiler, Architect.

Eschweiler has not been afraid to be simple when it was necessary, and has not spoilt his design with cheap ornament, but he has made an impressive and effective interior with good use of his material. He is not responsible for the reredos which is not in harmony with the strong, simple lines of the building.

To sum up, Mr. Eschweiler's work is characterized by sobriety and careful study; it is never flashy or meretricious, and often has imaginative touches that add to its charm. It has done much for the beauty and interest of the streets of Milwaukee, just how much no one can appreciate who has not known what Milwaukee was twenty years ago.

Samuel Hsley.



FIG. 22. THE HOUSE OF MR. FRANK WARD SMITH.

Milwaukee, Wisconsin.

Alexander C. Eschweiler, Architect.

The Value of the Curve in Street Architecture

A geometrical definition says that a straight line is the shortest distance between two points. So that any one who makes a road or other surface for traffic between two points usually lays it out between straight lines, or as near an approximation to them as he can get. Where there are many surfaces for traffic within a limited area, as in a town, the advantages of a straight line are increased; saving of time in travel becomes multiplied by the number of those who travel, whether pedestrians, horses, or street cars; the system of interwoven

generally revel in every kind of curvature, and, in the old world, streets follow their example. In every one of these we can trace to a greater or less degree artistic possibilities of a kind not to be found in the straight line. Lines of beauty do, or ought to, move in every park road or garden path that is not straight. A mere street curb is able to express a sweep of line that is living and dignified and a real pleasure to every one who can see it as it is. The really superb effect that can be produced by the foreshortened lines of common mac-



Embankment of the Arno at Pisa.



A Superb Sweep of Masonry Lining the Reaches of a River.

lines becomes simpler, and the spaces between them more useful and tractable; dimensions, angles and areas are easier to calculate and record; and drainage, sewage, and other practical problems are simpler to solve. As an artistic motive in surfaces for traffic when properly treated, the value of the straight line has been understood since the beginning of architecture; and it is as plainly seen in the Hypostyle Hall at Karnak or the Mall in Central Park as in the streets of Paris or the avenues of Schönbrunn.

For all that, as a motive for surfaces of traffic, the straight line is very much in the minority; cow tracks, country roads and paths in suburban gardens

adam is to be seen in any well-laid-out park here at home or in Europe, but particularly in France. The lines on the driveways in the Bois de Boulogne, for instance, have a grace and vigor and motion that will be a novel delight to any one who will go and discover them, and the simple borders of box or ivy along the entrance drive or path of a Parisian suburban lot have a grace that would be striking in itself without the laurels and aucubas they enclose. When a river winding through a town has its reaches fortified and accented by stone embankments, the sweep of line and surface of massive masonry is often a thing no less than magnificent, as most of those will agree who have seen the Arno



Franz Joseph's Quay, Vienna. The ugliness of angles that should have been united in one large curve.



Genoa.

at Pisa, the Tiber at Rome, or the Thames at London. The gentle reader is advised when next he takes a train to mark the superb sweep of the parallel tracks round a curve, and though they are nothing but segments of circles, he will see them foreshortened into ellipses, and acquire what Nero offered riches for—a new source of pleasure. Unfortunately, he will acquire also a new source of pain, for he will learn to feel discomfort when he sees lines on the ground, that should be curves, wrenched into kinks, or badly drawn, or in any way spoiled or lost altogether.

So the straight line is not by any means the only source of beauty in country roads or city boulevards. It has its practical disadvantages besides, for it is often not for purposes of actual utility, by any means the shortest distance between two points. This has been known from time

immemorial by all sorts of practical people, from the cow who prefers a spiral track up a hill to a direct track that is not half the length, to the railroad engineer who builds a horse-shoe curve in the hollow of a mountain. In fact, when it comes to laying down lines of traffic, the straight line is only the shortest when it does not entail a losing struggle with the laws of gravity. What this means, needs but a little figuring to show. If it takes a certain force to overcome a certain grade, it would, if other things were equal, take twice as much to overcome a grade of twice the steepness, because the weight has to be raised through twice the height. It is found that if a horse can draw 1,000 lbs. on a level, he can only draw 910 lbs. on a grade of 1 per cent., 550 lbs. on a grade of 5 per cent., and only 100 lbs. on a grade of 10 per cent. The resistance to the tractive power of a locomo-



Regent Circus, London.



Regent Circus, London.

tive due to gravity alone is 2 lbs. for every ton of the train on a grade of 1-10th per cent., and 32 lbs. per ton on a grade of 1.6 per cent. Such figures as these will give an idea of the power expended in every street of the town merely to overcome the unceasing resistance of gravity by pedestrians, horses and street cars, all of which can be expressed in foot-pounds of the strength of men and animals and coal. If the power thus used up on streets like Amsterdam Avenue, New York City, could be saved it would be worth millions of dollars annually, and add so much in wealth and en-

Thus for practical purposes, for economy of strength of men and animals or power of machinery, and even of time, for convenience and economy of planning of buildings and utilization of space the straight line is often anything but the shortest distance between two points.

Somewhere in the earth, ever since men have made structures to house themselves or their dead, or their ideas of a deity, the curved mass of masonry—usually taking the simplest form of a circle or part of one—has found expression, either growing out of practical



Via Serbelloni, Bellagio. The picturesque effect of houses built along an ancient cow-track.

ergy and comfort to the community to be expended in profitable directions. Apart from the saving of energy, it will often take actually less time to trot or steam at full speed along a roundabout but easy course than to climb on foot or wheels slowly and laboriously up a short but steep one. Besides, buildings along a steep street are more difficult to plan and expensive to build, and the back yards must either remain sloping and lose part of their usefulness, or be raised into levelness and practicability by terrace banks or retaining walls; all which means further expense and loss of space.



Amsterdam Ave., from 116th Street, N. Y. C. Showing cars climbing painfully in and out of the valley of 125th Street—the gridiron unmitigated.

needs of material or uses, like the piles of the mound-builders, the Indian topees, the amphitheatres, the Colosseums or the Albert Halls, or the circular meeting places of radiating streets like those in Washington or the Place de l'Etoile in Paris, or made wholly or in part for their own sake, like the Temple of Vesta, the colonnade of St. Peter's, or the apse of a Gothic cathedral. Never a building age but has, in one way or another, felt and submitted to the fascination of the line that always changes, that presents successions of innumerable columns or windows or even mere unbrot-

ken surfaces at different angles, each with its own variety of light and shade, yet all in graded order, and gaining from the foreshortening of a number of equal things the variety of a series of unequal ones, changing successively in exact proportion. Every pillar in Bernini's colonnade, and every exterior stone in the Castle of St. Angelo has a presentation, an individuality and a distinction that it could not acquire in a structure of rectilinear plan. Never a Mr. Howson Lott who devises a path of superfluous wriggles up to his front door, and aggravates his indirectness by the latest and rigidest kind of cement pavement,



Kingsbridge Road, N. Y. C., Looking South. The ugliness of successive angles in a road that should have been made in natural curves.

but feels strongly, if illogically, the charm of the foreshortened curve, so pleasing to the eye and so exhilarating to travel along. No one of artistic feeling or performance who does not delight in the eternal and indispensable curve of the sky or the cathedral dome, of household utensils or decorative detail, whether of the surface of a vase or the stupendous ellipse of a planet's course. People go out of their way to make curves in anything, from an argument to a garden walk, from the plan of a church to some new distortion of the feminine form divine. And perhaps all this groping after the curve is less mad than methodical, a yearning for something eternal and essential. Is there such a thing as a straight line, after all?

The straightest-looking lines are those which are really curved. A column must have an entasis or it appears concave, and a long wall or step must rise in the middle lest it seem to sag, and the Parthenon, exemplar of severe verticalness and horizontality, had not a straight line in it. The parallel beams of the sun at sunset appear to spread towards the zenith, and converge to the opposite horizon; the lines of a street, eaves, windows and curbstones rise and fall to their vanishing points whichever way one turns. The plane-appearing superficies of the sea is round, and so is the right line of the horizon. The fact is,



From the Doge's Palace, Venice.

there is no such thing as a straight line. They are all merely phenomena, apparitions, not realities, tiny segments of vast circumferences serving for our small and temporary uses. The more sides a regular polygon has, the nearer it approaches a circle; and when the number of sides becomes infinitely great and their dimensions infinitely small our polygon becomes a circle. Thus every straight line on the earth, every tangent at the end of one of its radii, is but another contribution to its general roundness, and the gigantic path of the sun's light to one of its planets is but an infinitesimal part of an infinite circle of the universe.

Yet with all this instinctive search for the bending line, its use in and out of season, building designers seem often

loth to use it, particularly on a large scale; or perhaps it does not occur to them. There was, for instance, a noble opportunity for a sweep of columns or arches or other architectural motive lost at St. Louis, where the transverse avenue between the principal groups of buildings would naturally be a circle struck from the centre of the great fountain; but the obvious and opportune curve is broken into six straight lines and four angles, two of them re-entering and all more or less difficult and thankless to treat. The bridges of Paris and Rome rise to an angle in the middle instead of the more graceful and convenient curve of those in London. Compare the splendid sweep of the Arno embankment at Pisa with the ugly angles on Franz Josef's Quai at Vienna. How much more restful and pleasing would have been these lines of buildings, curb and car-track, had they been reduced to one great segment of a circle. A railroad engineer is compelled to make a curve at every change of direction, as a train will not travel along a kink, but the city engineer, or whoever plans new roads or streets, never uses a curve that can be avoided; it is troublesome to lay out on the ground and record in the office. So our towns are disfigured by endless successions of streets meeting at awkward angles in road surface and building line. If we wish to see a street of graceful line that is not straight, we must usually go to the old world where they have grown up everywhere along ancient farm roads or sheep paths. The character of such a street is entirely different from that of a straight one. The sides bend round a corner and disappear from view, provoking the never-fading curiosity to discover what is beyond. The façades of the buildings are presented at different angles, and, on one side, to greater advantage than where they are all in the same plane. How much of its charm does the Grand Canal at Venice owe to its windings, and how much would some of the palaces lose were they to be marshalled along their watery highway straightened out, until one could see from the railway station to the ducal palace? How much of their

fascination do so many country towns of Italy or England owe to the curvature of their streets? Look, for instance, at the picture of the Via Serbelloni at Bellagio, where the houses have obviously strung themselves along the track of farm wagons rotted away, maybe, these thousands of years, but which took the easiest route uphill. What a charm did those long-forgotten feet or wheels lend to the irregular course they unthinkingly marked out! Look at the picture of the street seen through the ancient gateway of Bologna! This long-buried Strada dell' Abbondanza at Pompeii so nearly approaches the superb in the sweep of its lines and the regularity of its massive piers that it is hard to believe that it was not designed and constructed for the effect such a highway ought to have. They seem to have understood the value of equal spacing and continuous cornices on a curve in England better than on the Continent; they have found the conditions there, and gladly accepted them for a motive. There is the famous example of Regent's Circus in London, or the Crescent at Bath, where the resulting effect is very striking in its logic and order. In the West End of London are many curved streets of houses of similar and commonplace design, yet looking very handsome and dignified with their unbroken horizontal lines and repetition of vertical ones. In the same way, and on a very large and complete scale, the circle is used in the Piazza Castello at Milan. These curved streets separate themselves into two classes, the monumental or conscious and deliberate (which is comparatively uncommon), and the accidental or picturesque, which is found in almost every town in Europe, and many at home. All travelers see, and most travelers admire them, more or less, consciously or unconsciously, for they are full of charm and artistic suggestion. Yet, though every traveler with half an eye for the picturesque has felt their fascination, though they have been sketched and painted and engraved and oleographed, though irresponsible Cook's tourists have snapped them with portable kodaks, and serious profes-

sionals have photographed them with clumsy box cameras, it does not seem to have occurred to any one, in this country at least, to take them for a motive of design, to deliberately and aforethought make something of the same kind where circumstances permit and encourage. Yet we have within our borders places and conditions that invite such experiments. Amsterdam Avenue runs resolutely north and south, but achieves a straight course only by dipping into many valleys and scaling steep ascents, and numerous cross streets are so set in their determination to run east and west

of beauty, very often little thought of convenience or cost of construction, and no real designing except for such practical needs as those of sewage and surface drainage. The idea of seriously attempting to adapt the city plan to its site seems to have cost no one a moment's sleep, but the resolve to adapt the site to a plan—that of the gridiron—appears to have guided every ruling pen and every T-square that has had a share in placing the streets of Greater New York. Yet the undeveloped part of our city offers opportunities for urban scenery and the practical uses of a city,



The Parade, Dover. Strong cornice lines on a curve.



The Strada dell' Abbondanza, Pompeii.

that traffic is inconvenient on them at all times and really perilous in winter.

Thus the curve in street planning is a thing not to be avoided, but gladly accepted, when conditions suggest it, when a change in direction becomes imperative or a steep slope is to be surmounted. Here in Greater New York north of 155th Street, and in some places south of it, are great areas of rough land through which streets have been cut or planned, or will be planned and cut, with ruthless and blind angularity and regularity, with no thought

for uniting the glories of architecture and the greenery of parks with convenience of traffic and places to travel to that no modern city can equal. But if this splendid inheritance is to be used and developed, and not squandered by mishandling, the problem of investing it must be studied by minds untrammelled by tradition; that know and can employ the lessons of previous ages and works with zeal and judgment, but will not be bound by them in conditions that they do not fit, that are local and unique and our own.

H. A. Caparn.

NOTES & QUERIES.

THE CARNEGIE LIBRARIES IN NEW YORK CITY

These are branches of the New York Public Library, that great institution which is named, in the way of subtitle, as being of the Astor, Lenox and Tilden foundations; those three previously existing collections of books being united legally into one; with a single board of trustees. The Carnegie gift pays for certain buildings upon land which the city furnishes, and it is to be noted that in Manhattan Island and in the Borough of the Bronx the great cost of land has acted to keep down the size of the plots and reduce the buildings to simple things enough—more generally having fronts which look like those of dwelling houses from 30 to 50 feet wide, and three stories high. And just here will arise the controversy which the librarians standing for the public are to have with the architects. As was inevitable, the fronts have been very conservative, school-taught, Paris-inspired, neo-classic façades of an approved form, such as would pass examination well in any of our architectural teaching establishments; though to the exclusion, of course, of very much daylight, and to the ignoring of the somewhat important though less stately fourth-story rooms. It was with a gentle amusement, as of having heard it before rather frequently, that the present writer received the news from a person wholly unconscious of the satire—a person fully versed in the lay-out of one of these libraries and thinking for the moment of naught else than to grant the information that "in the rear we did not have to be troubled with architecture, you know, and so we got the windows where we wanted them and as big as we wanted them." It is also true that another remark of the same informant was to the effect that "in the rear we can have it all window if we like"; but that also, to the heretically-minded critic seemed like an ideal recipe for a library front in a crowded town. Were we not compelled to say as much three months ago (see November number of the RECORD) for the huge and costly front of the Stock Exchange? Was not the whole front of that

building avowedly subordinated to the provision of a vast window? There used to be a New York church front crowded in between two ordinary five-story façades; you entered a long passage and went through it to the church in the rear, but the whole wall space above the doorway of entrance was made into one huge English Gothic East window in appearance. To be sure this only lighted a little library which was connected with the church in an old-fashioned way of the time when there was little opportunity in New York to borrow books for reading at home. But still that was the Gothic way; the Stock Exchange front shows the revived Roman way; the Chicago brewery with which we dealt in January is a pretty good example of how a huge "stack" of windows might be built with brick piers or rather mullions between them and a common architectural presentation of the whole.

All this preamble assumes that the libraries are to have but one front, and that in the great need of daylight they will not undertake to put shelving for books against that front wall, nor yet against the rear wall which gives upon the yard or garden or open space behind. Those are the conditions of the Tompkins Square branch, in East 10th Street; the building located near Third Avenue, in East 125th Street and taking its name from that street; the building in East 67th Street, likewise named for the street upon which it fronts; the Riverside branch in Amsterdam Avenue; the Chatham Square branch in East Broadway; and the building at No. 222 East 79th Street, which was the first of all to be erected or at least to be undertaken. It is of these that there must be further mention here, while those buildings which are characterized by a decidedly more free planning, as if for a village site, such as the two on Staten Island and the one at Mott Haven, may be left for later consideration. The last-named at Alexander Avenue and 140th Street, although nearly a city "corner house" is still so treated with windows in abundance on three sides that it looks like a public institution, much broader than it is high, and pierced with openings for light where they seem to be needed.

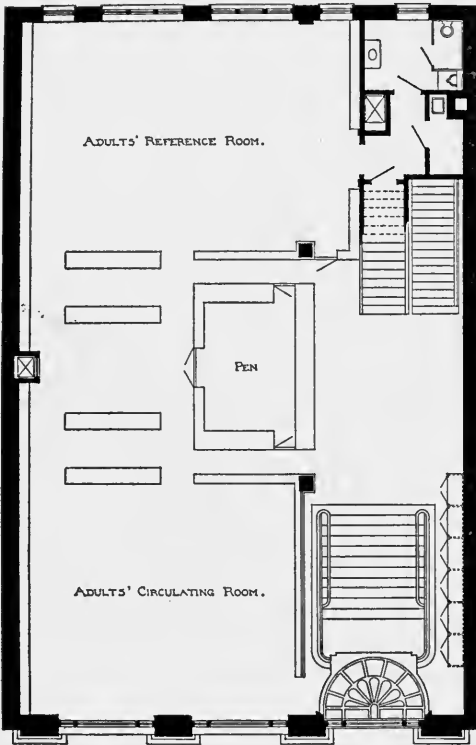


Fig. 1. 67th Street Branch, N. Y. Public Library.
Ground Floor.
Babb, Cook & Willard, Architects.

Returning then to the street fronts, we may well take as our example of plan, disposition and façade, the 67th Street Branch, of which the architects are Messrs. Babb, Cook & Willard. Our Fig. 1 shows the first floor plan,* and the system is at once made clear by which the would-be reader enters the narrow passage on the right hand of the "Pen," passes round it, gets his book and comes out on the other side, passing through a second narrow passage. The Pen has a counter in front and cases on three of the sides, and three wickets of entrance, and here the book-borrower returns, as he enters, what he had previously received and has it credited to him. As he comes out again he is charged with whatever book he is taking with him; and here in the exit-passage the examination is held and the questions are asked; because the books are all open to the handling of the visitors and nothing except this examination at leaving the building will enable the superintendent to keep "count" of

*This and other plans, together with most of the photographs of fronts are furnished by the Director of the New York Public Library in his annual report.

what is going on. The plan shows a doorway from the vestibule into the "Adults' Circulating Room," but it does not appear that this door is open to the public. A person taking a book from the bookcase may sit and read it in the Reference Room, and may bring it away with him, but in any case he has to make his exit through the passage at the head of the vestibule stairs. The second floor is shown in Fig. 2, and repeats very nearly the plan of the ground floor, and the legends show that this is the Children's Department. The long parallelograms which in both stories the reader will at once recognize as bookcases, are only seven feet high or thereabout—they do not in any way constitute a stack, nor is there much room for storage of books. Finally, Fig. 3 shows the third floor plan, with the largest reading-room, where there are periodicals, including many newspapers, and where apparently there is less supervision than below, although a librarian's room is provided and there is always some official on guard. The stairs seen in this plan go up to a partial fourth story, giving to the janitor a kitchen, a living room, a bath room and three bedrooms, with suffi-

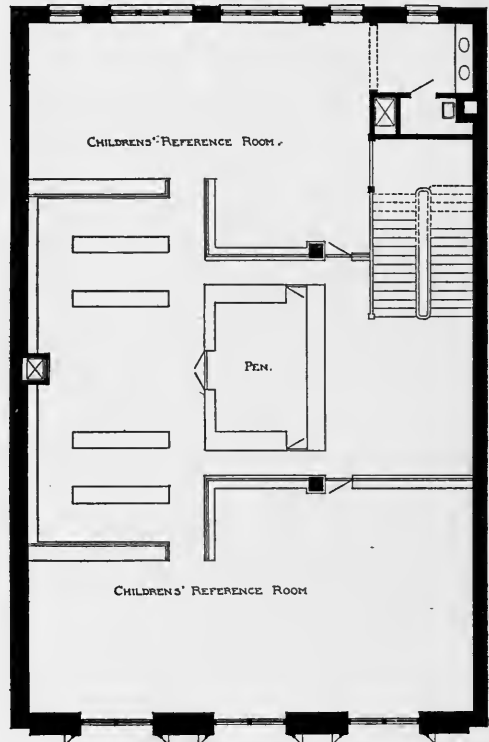


Fig. 2. 67th Street Branch, N. Y. Public Library.
Children's Department.

cient storeroom and closets. This addition to the building does not appear on the front; it is a separate block built across the house at the rear end, with its windows in the "rear elevation" and others looking out over the flat roof of the main building.

The front of the 67th Street branch is shown in Fig. 4, and it is noticeable that a good, solid parapet enables the janitor's children to make a playground of the roof if there is no other consideration than their own safety. The front is seen with the large win-

plan would no doubt resemble our Fig. 1. In like manner the second floor is devoted to the Children's Room, and in the third floor alone is there an important difference, for there the General Reading Room occupies only the front half of the building, while the janitor has the rear. This building, then, is on the whole a more satisfactory and, to all appearances, a more easy-working plan than the one previously named. Its front is shown in Fig. 5.

The Tompkins Square building, just described, is, together with the branch in 125th Street, the work of Messrs. McKim, Mead & White. The plans of that last-named building are very like those of the Tompkins Square library in all respects, and the façade is not dissimilar, although to many of those who will examine it in Fig. 6 it will be the most attractive of all these fronts. The little square traps which alone serve as windows for the third floor Reading Room can only be justified on the supposition that skylights are counted on for work in that direction. A look at the front will show that these little windows must be rather near the floor, while the room rises high above them. It is not, assuredly not, realistic planning and building, but there are those who do not dislike skylighted rooms.

The Riverside branch is the work of Messrs. Carrère & Hastings. This building occupies a broader plot, and it differs from the others in having a very large assembly room in the basement, going through from front to rear and made accessible by a tolerably easy approach on the left of the front, seen in Fig. 7. There is here shown a "Stack Room," and, indeed, the available space seems to allow storage of a good many books on the first floor in addition to the Adults' Reading Room, while the space around the Pen is sufficient for an "Adults' Circulating Room." The second story, which is very high, is less deep than the story below, that is, with its rear wall supported on columns and set far in from the level of the rear wall below. Advantage has been taken of the height of stories to arrange a double mezzanine with Librarians' Rooms and Toilet Rooms, and the third story has the janitor's apartments in the rear and a Reading Room with skylight, on the street.

Here stops our detailed inquiry for this month. The buildings we have considered are all of the regular street-front type, and it need surprise no person that they are treated in design like private houses. The private house, the private office building, the public building of municipal and governmental offices, are all more or less akin in

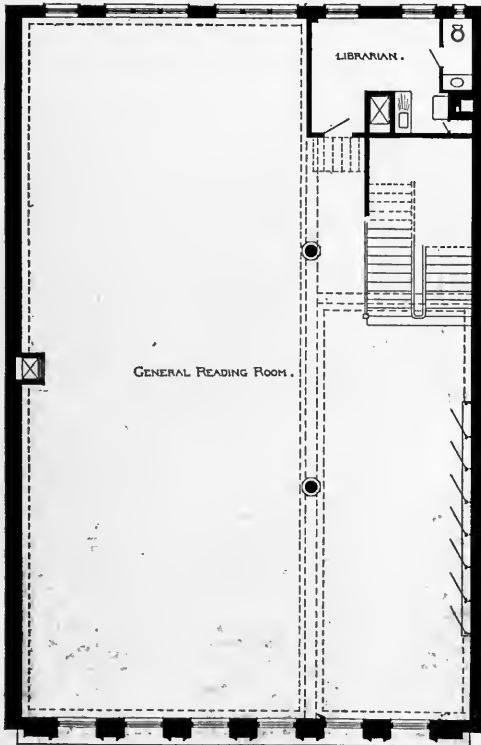


Fig. 3. General Reading Room of 67th Street Branch, N. Y. Public Library.

dows of the Children's Reference Room swung open, showing the edges of the sash.

The Tompkins Square branch is recommended by those who have these buildings in charge as receiving the most daylight—as being the most practical. It has in the basement an assembly room of good proportions, occupying the whole rear of the building, a feature which does not appear in the 67th Street library, in which the packing room and boiler room take up all the space. The first floor is occupied by a single large hall, the Adults' Room, although when the dwarf partition and bookcases are put in, the



FIG. 4.—BRANCH AT NO. 328 EAST 67TH STREET.

New York Public Library.

Babb, Cook & Willard, Architects.

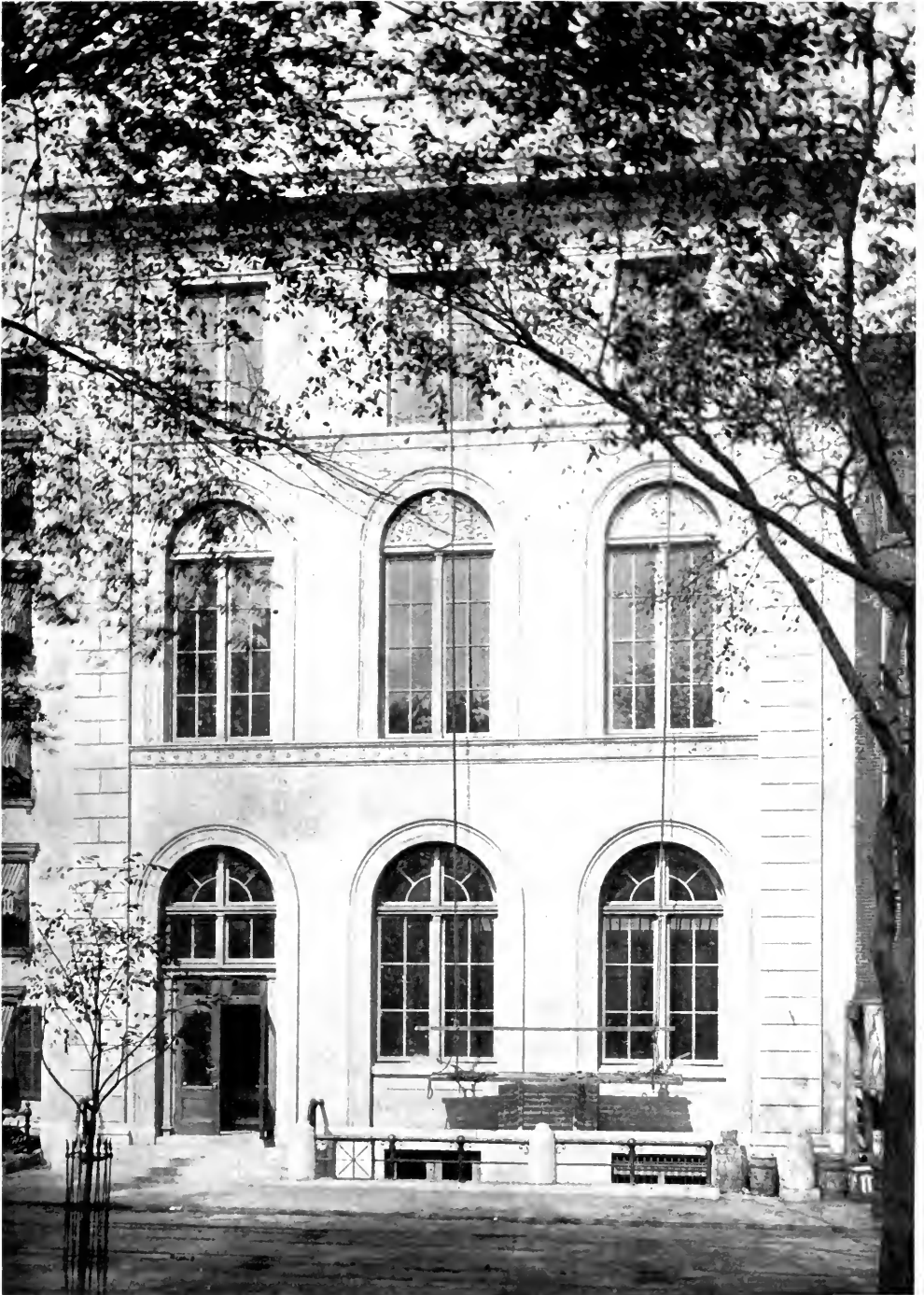


FIG. 5.—TOMPKINS SQUARE BRANCH.

New York Public Library.

McKim, Mead & White, Architects.

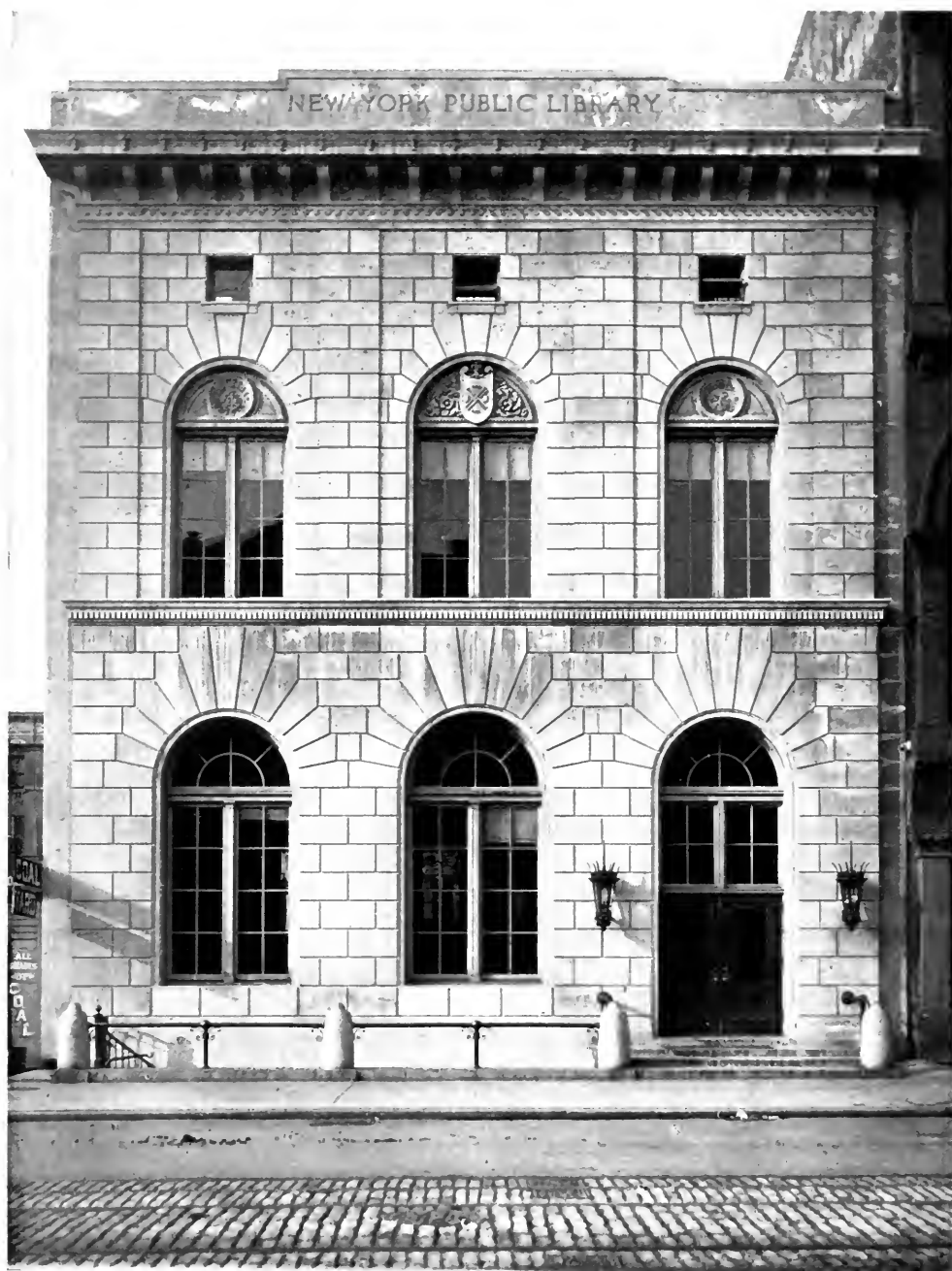


FIG. 6.—BRANCH AT NO. 224 E. 125TH STREET.

New York Public Library.

McKim, Mead & White, Architects.

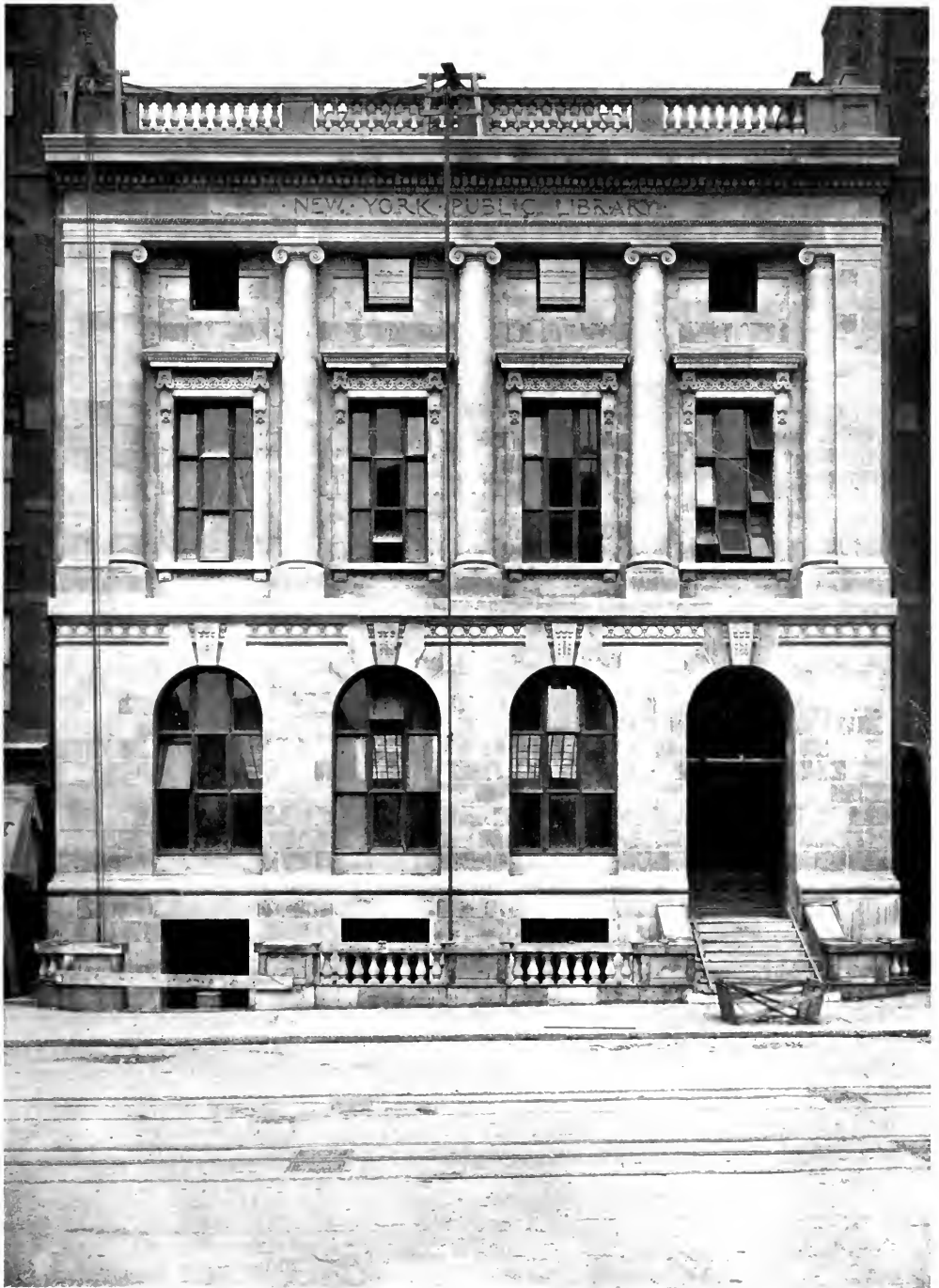


FIG. 7.—THE RIVERSIDE BRANCH AT NO. 190 AMSTERDAM AVENUE.

New York Public Library.

Carrère & Hastings, Architects.

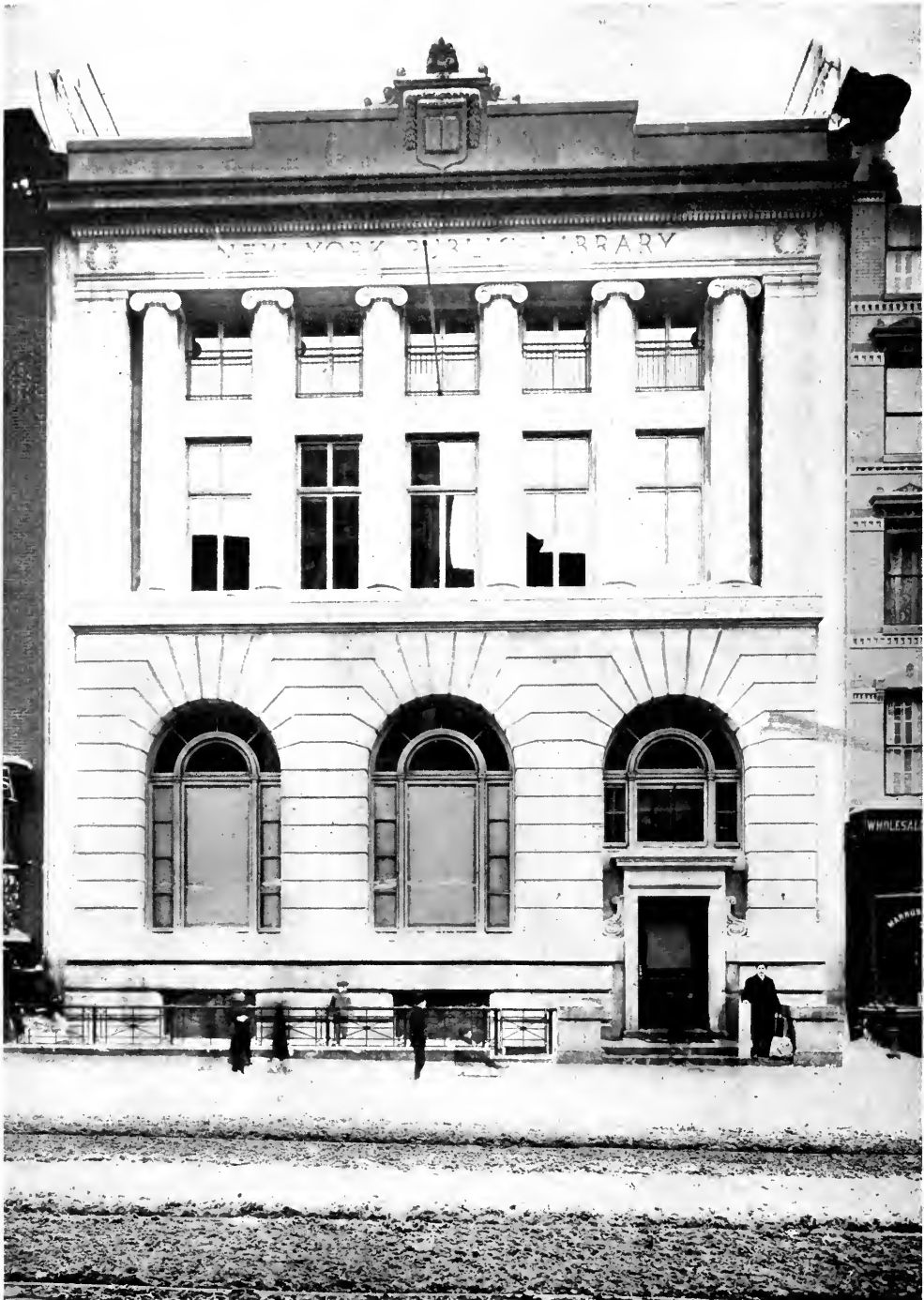


FIG. 8.—BRANCH ON EAST BROADWAY.

New York Public Library.

McKim, Mead & White, Architects.



FIG. 9.—BRANCH AT NO. 222 E. 79TH STREET.

New York Public Library.

James Brown Lord, Architect.

the amount of daylight they require and in its disposition. In each of those types of buildings the same window, four feet wide and eight feet high, with allowed divergencies in width and in height, is the main thing—the principal detail of the façade. This is not to say that no improvement is feasible. Sedentary people who work all day in a room of any size and of any form whatever, will often complain bitterly of the alternation of five-foot piers with four-foot windows. The broad, dead space—the huge triangle of shadow—the external wall which shuts out the daylight, is a thing to regret.

In the library building, however, which is a new problem, there is a chance to accept at once a new design, and if anyone can give a good reason why these façades as here reproduced, should not be modified by reducing the windows of each story to a continuous line of four-foot windows with ten-inch mullions between them, it would be well if he would speak up.

There is a dim idea in the architectural community that a special kind of front befits a library, and it is from an existing library that the idea of that possible front is taken, the Bibliothèque Ste. Geneviève in Paris. Here, however, the books are placed against the outer wall and the windows come above the cases because, in the first place, this building dates from a time long antecedent to the modern library movement; and in the second place, because the great hall is so open and so high that windows high in the wall may fill the whole nave with daylight. The construction of the iron roof also calls for those broad piers and explains them. The oddity of its appearance—of the reproduction of this wall in the Boston Public Library, where the high windows, filled up below with a dwarf wall beneath a false or secondary sill has not prevented some American writers from assuming that that type of wall is a good one for the front of a public library. No scheme of that kind is suggested here. What seems to be needed is just such a front to every separate story as is given in that wrought-iron and brick warehouse of the Fisher Marble Co. shown in this issue of the department of Notes and Queries. What the Reading Room for grown people or for children requires is a continuous front of glass divided by mullions; or you may call them piers if you like, according as the exterior design may be; but in any case four feet of glass to every one foot of solid upright, measured along the horizontal line, is about the allowance. And this applies to the corners, to the ends of the row of windows as well, for there can be no reason for more

than twenty inches of solid wall at either extremity of the façade.

And now, if the architects cannot make a design out of such conditions as these, so much the worse for them, and, as we all know, so much the worse for our modern architecture! It is no time to recall, strenuously and with conviction, the teaching of your architectural school when the problem is that of supplying a book room thirty feet wide and sixty feet long with daylight which can only be admitted at the two ends.

There are some amusing variations which are practicable. If the rooms may be high enough, then a double set of windows is in place, small, square traps below, just enough to let you see the street and put your head out, broad surfaces of glass in the upper part of the wall, on some such relative scale of solid and transparent as is suggested above. That very motive has been introduced, though with reserve, into some modern buildings of mainly utilitarian purpose. There is a hotel in a seaport town of New England with windows very wide and the sash working pivot-wise, and the sill very high above the floor. I have lighted several private libraries in that way, allowing of five-foot bookcases everywhere below and letting the light in from above through square openings. These are conditions which invite architectural treatment, and the authorities of the public library would confer a benefit on the modern world if they would use the opportunity now in their hands to enforce a front as logically planned for its requirements as are the rear walls of their own branch libraries.—R. S.

THE FISCHER MARBLE WORKS

Mr. Charles H. Caldwell has sent us photographs of a business building recently erected by him in New York City, Borough of the Bronx. There has been discussion, as some of our readers will remember, of the reveal question—the importance of having some reveal to your window and door openings, and the impracticability of putting it in when there is a modern constructional and strictly industrial building in hand. It was with a view to that very question that these photographs were submitted as a strong document for the defence. For, indeed, if your building is the post-and-beam structure, which it may so naturally be, nowadays; and if you are enthusiastically trying to give your employer every square inch of wall space within his walls made available and fit for immedi-

ate use, you will come to some such conclusion as is set down here.

The building is at Locust avenue and East 140th street, and between Locust avenue and the East River. East 139th and East 140th streets have both been closed at this point by legislative action, so that the plot of ground occupied by this structure has been made 260 feet long. The advantages of this unusually spacious plot are visible enough in the design as carried out. Our two photographs, Figs. 1 and 2, show three sides of the building—that is to say, all the sides

and regulated façade in either instance. For reasons closely connected with the great size of the plot, and by special authorization, the steel structure is not concealed—nor built in and around with protecting brickwork. We have then, here, nearly the conditions which will prevail whenever our cities are sufficiently free from the daily and hourly dread of conflagration to enable the abandonment of the regulations which forbid exposed metal work. If our buildings burned as seldom as those of, for instance, Paris, it would not be necessary for us to hide the real structure



FIG. 1.—FACTORY OF THE FISCHER MARBLE CO.

Locust Avenue and East 140th Street.

The Bronx, New York City.

Chas. H. Caldwell, Architect.

which face the land, excluding that one which fronts directly on the salt water. There is a double-pitched roof of the slightest practicable pitch. The gable, while showing on the right in Fig. 1, and on the left in Fig. 2, is apparently ignored in comparison with the other front—at least there are no wrought-iron brackets to carry or seem to carry the overhang of the eaves, and the blank brick wall comes where it is found convenient; while on the other fronts the windows fill the whole space from corner to corner, and in this way put on the look of an organized

of the exterior when it happens to be in wrought and rolled iron; and here, with their own land around them on every side, the owners have been able to dismiss the unarchitectural device we speak of, a device destructive of all logical methods of design.

If these views be compared with the pictures of factory buildings in the Architectural Record in the January and February numbers of 1904, it will be felt at once that a new element appears, that a new possibility is shown to exist, that a new motive of design is secured for us, whenever the time comes that we can build as we wish to build

—as our instincts direct us to build—with a frame of steel. It is just in this way that our sky-scrappers would be built if we could do so without the fearful penalty which threatens us, the penalty of destruction by heat. Someone who has a thousand dollars to spare might well offer a prize in connection with the exercises of the Architectural League of New York, or some one of its kindred societies elsewhere in the country—a prize for a design, a twenty-story business building arranged on these constructional lines. Any one who loves realistic designs might well

street, and for Thomas Jefferson Park, far uptown, on the East Side, on the shore of the East River, at One Hundred and Twelfth street. He has taken as his principle of design in each one the Florentine arcading of the fifteenth century, and has associated with that more of a strictly Roman method than the Florentines at that time were inclined to follow. At least that is what he has done with the pavilion already completed in Seward Park. For look at the illustration, Fig. 1, and note how the end pavilions have a solid pier, the arch held



FIG. 2.—FACTORY OF THE FISCHER MARBLE CO.

Locust Avenue and East 140th Street.

The Bronx, New York City.

Chas. H. Caldwell, Architect.

envy Mr. Caldwell his chance, even when it was only a two-story building that was concerned.—R. S.

PAVILIONS IN THE NEW YORK PARKS

The new city parks of New York have, or will have each a "pavilion," a structure giving shelter from rain and summer sun, and serving other purposes according to need. Mr. Arnold W. Brunner has been employed to design two, for William H. Seward Park, where East Broadway meets Canal

securely by very sufficient abutments, and the spandrils filled with sculpture. Now, without denying that the Florentines of the Risorgimento would have used such a piercing if it seemed expedient, it is yet a little foreign to our general notions of the light and graceful arcading of that time, for, as we think of the loggia in front of the Innocenti Hospital, the one with the swaddled infants in the rondels—or that fronting on the square of Santa Maria Novella, which is named after St. Paul, and beneath which is that wonderful Della Robbia lunette of the two saints meeting in heaven—as we think

of these we exclude from our thoughts so massive and so nearly classical a structure as this archway at either end. If one chooses to go still farther into the historical examination, he might also say that the modern architectural school influence is seen in the completed triangles in the spandrels along the whole front, and that this, on the whole, is a sixteenth century arcade rather than one of the earlier time. Use of the Ionic order helps in that conclusion. And if we feel inclined to question the design historically at all, it is because we are interest-

in the basement of the building, as, indeed, might be supposed by those who should note the otherwise too large openings in the podium—the basement upon which the columns rest. The large basement story is used, as shown in Fig. 3, for a prodigious establishment of public baths for men and for women, with what is called an establishment of public comfort in connection with each one. The communication is by stairs from the outside.

Fig. 4 shows the newer pavilion at Thomas Jefferson Park, the view being taken



FIG. 1.—PAVILION IN SEWARD PARK.

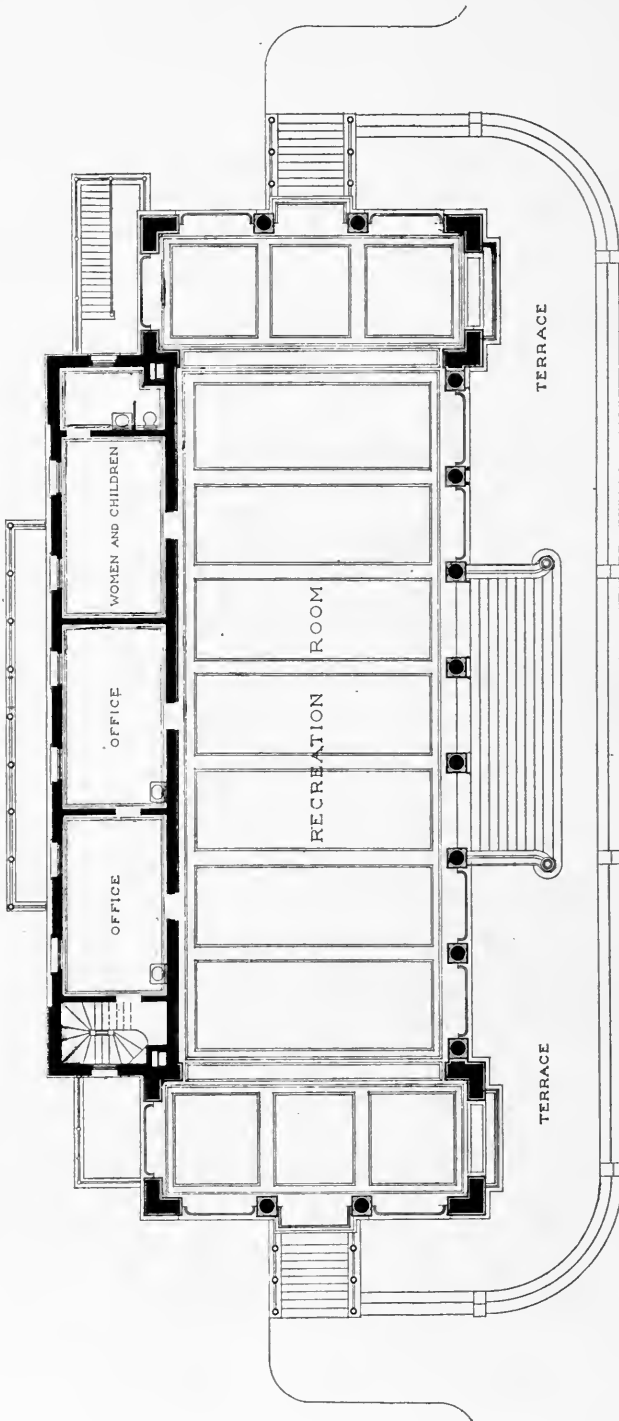
New York City.

Arnold W. Brunner, Architect.

ed, of necessity, in the very charming use of it made by the modern artist. The plan, Fig. 2 shows how the whole of this upper story is one great "recreation room" where women may sit and sew and take care of their younger children, while the sports of the older ones, in the park without, are still visible. The three enclosed rooms in the rear are put there because a row of commonplace houses is very near this pleasure-pavilion on that side, and it is just as well to build them out.

But the main provision for serious needs is

from the land side and the buildings on Randall's Island showing in the distance on the right. The architectural style is the same as in the other case, but the plan and disposition are different, and, as it seems, even more attractive. The four very large piers which interrupt the arcade near the middle where the broad flights of steps give access to the floor, are themselves staircases and offices. In two of them are stairs going down to the bath-room below, in the other two some official duty may be discharged. Here, as in the other case, the whole basement is filled



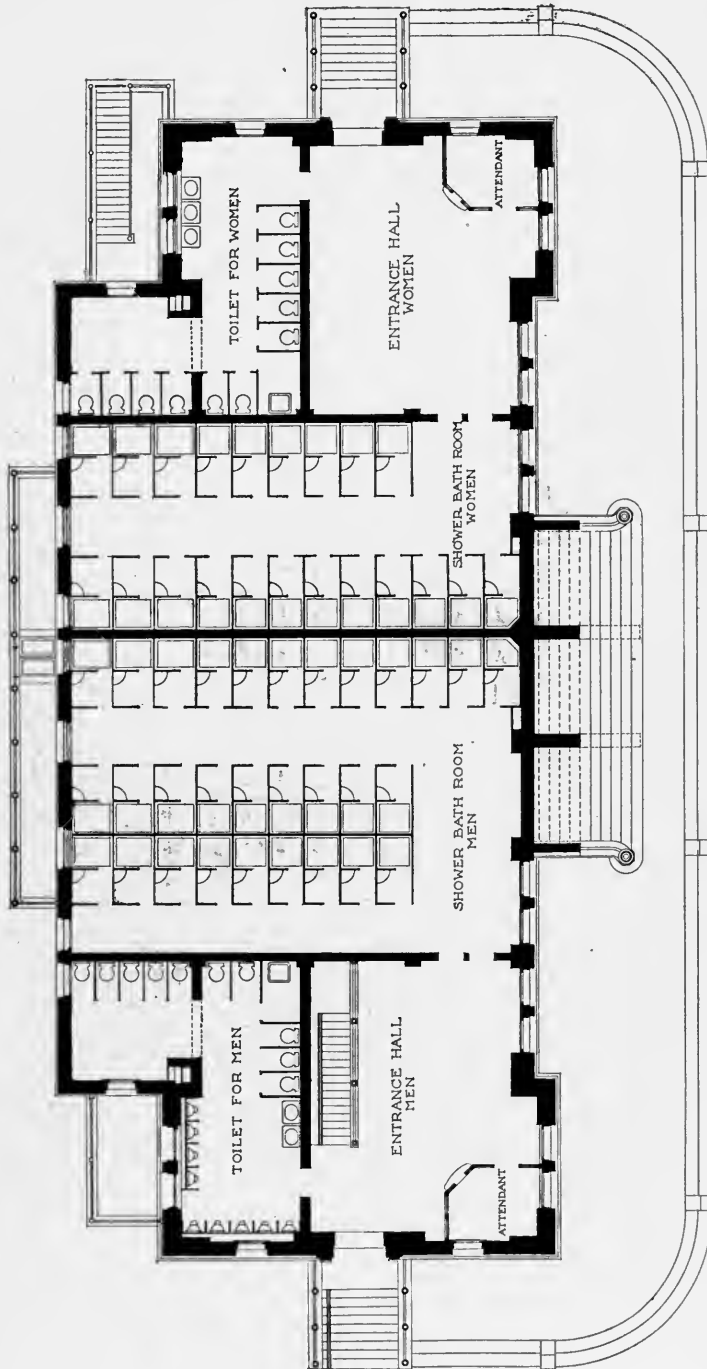
GROUND FLOOR PLAN

SEWARD PARK PAVILION

ARNOLD W. BRUNNER
ARCHITECT

WILLIAM R. WILLCOX
PARK COMMISSIONER
SAMUEL PARSONS JR.
LANDSCAPE ARCHITECT

FIG. 2.



• BASEMENT • PLAN •
- SEWARD - PARK - PAVILION -

• ARNOLD • W • BRUNNER •
• ARCHITECT •

• WILLIAM • R • WILLCOX •
• PARK • COMMISSIONER •
• SAMUEL • PARSONS • JR •
• LANDSCAPE • ARCHITECT •

FIG. 3.

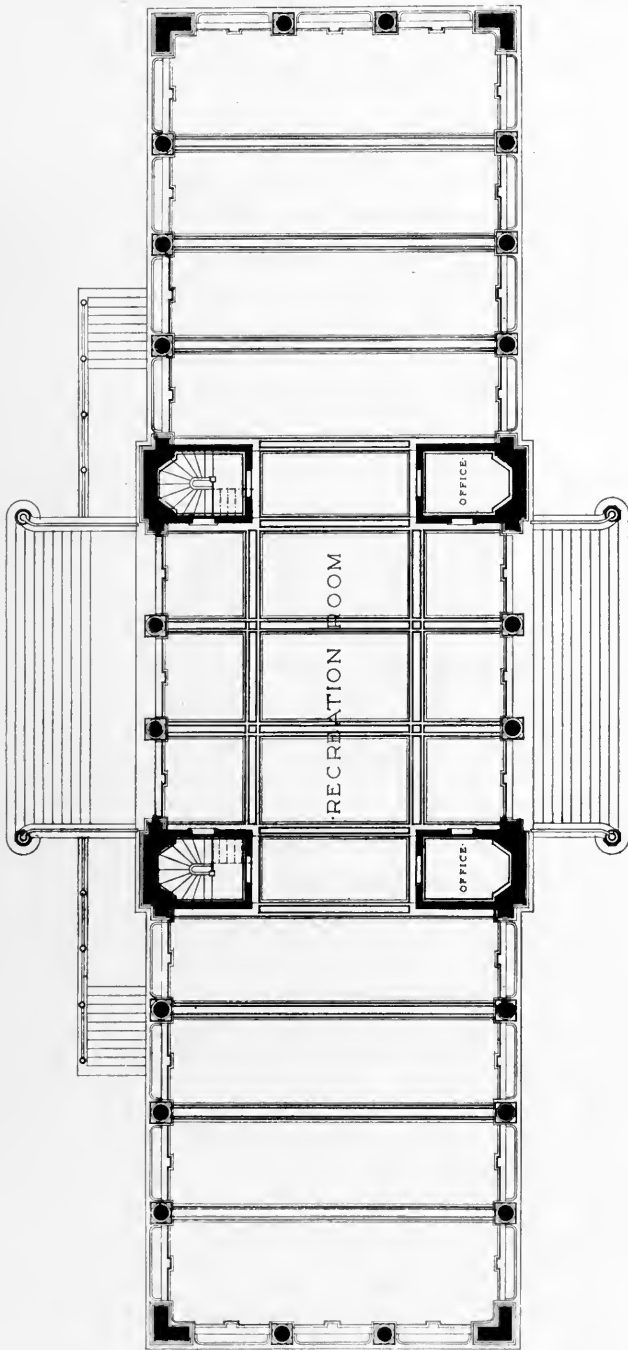


FIG. 4.—PAVILION IN THOMAS JEFFERSON PARK.

Arnold W. Brunner, Architect.

New York City.

· RIVER SIDE ·



PARK SIDE
· GROUND FLOOR PLAN ·
· THOMAS JEFFERSON PARK ·

WILLIAM R. WILLCOX
PARK COMMISSIONER
SAMUEL PARSONS, JR.
LANDSCAPE ARCHITECT.

ARNOLD W. BRUNNER
ARCHITECT

FIG. 5.

with bath-rooms and accessories, but it seems hardly necessary to give a plan of this basement story, as its disposition results from that of the first floor.

These are really most attractive buildings, and when we come to consider, as we may do before long, the interesting things that are to be found in American building, we must refer back to these pictures as additional illustrations of what will then be our theme.

But why do I assert that the Jefferson Park Building is more beautiful than the other? There is nothing to influence one's judgment beyond the mere artistical charm itself, and the two buildings together form rather a good study of the difference that may exist between two equally sensible, equally reasonable buildings, each of them showing the same conscientious care on the part of the designer. Moreover, it is hard to say that one of them shows in any manner or degree a superior power of design over that manifested by the other. It has been merely the occurrence to this designer of a more happy thought that distinguishes the newer from the older pavilion. It is admitted, of course, that a long row of arches like those seen in Seward Park furnishes a sufficiently powerful and important centerpiece. You need not to go farther nor to trouble yourself to set up a clock-tower or a pediment in the middle of such a long-continued horizontal construction. The only thing you have to fear is the look of sagging which such a horizontal cornice may put on. If the designer of such a building bethinks him of that and cuts his stone blocks in such a way as to crown up the middle of his long curtain-wall it will be the better for him. Apart from that, one need not even dream of finding fault with the Seward Park pavilion. It fills the requirements perfectly as a design.

But look now at the building in Thomas Jefferson Park and see how much better it is, after all, to concentrate the interest in the middle of the façade—to raise the blocking-course and to emphasize that increased height by the massive piers, and in this way to produce a more prominent "center-piece" and not one which requires the bounding and limiting mass to make a centerpiece of it. In other words, the reasoning out of the design would seem to lead us to favor the design Fig. 4; and this is confirmed by the witness of the eye, which says, Yes, that is of the two the more graceful and also the more impressive composition. Is it for anything in this opinion or feeling that the portico is open from side to side? Probably not, for of the two motives

the open colonnade backed by a solid wall, and a smaller colonnade repeating itself beyond with the sky showing through it, the first should rather be the impressive building.—R. S.

MOMENTOUS EVENTS IN BOSTON

Events that, in their gradual development and ultimate results, will have powerful effect on the future aspect of Boston, have been taking place so quietly that one can fancy there are many in the city who did not hear of them or have now forgotten. These are the letting of the contract for the building of the Charles River dam and the issuance of the revised report of the Building Height Commission. The purpose of the Charles River dam, which is to be on the site of Craigie bridge, is to exclude the tides from the river above it and thus to make possible the establishment of a beautiful river park and superb recreation center for all kinds of water sports between the cities of Boston and Cambridge. To the houses of Beacon street, that now turn haughty backs on the variously splendid river and the unpleasant mud flats, there will be given a rarely interesting and beautiful river outlook. Incidentally, the architects are going to have some absorbing problems in devising domestically livable houses with double fronts and no backs. The letting of the contract, which has been given to the Holbrook, Cabot & Rollins Corporation of Boston, whose bid was \$801,607.50, meant the successful completion of many long steps and the beginning of tangible evidences of progress. The Building Heights report is as negative as the dam contract is positive, but its results will be not less strikingly visible, nor do they promise to Boston a less impressive individuality among American cities. The commission, after many hearings in which objectors were given full opportunity to state their case, has issued its revised report, determining for fifteen years the limits within which buildings in the City of Boston may be erected to a height of 125 feet. There are no parts of the city in which that comparatively moderate height can be exceeded, and the only appeal from the commission is to the state legislature. The revised report includes in the tall building district Park Square, the lower end of Boylston street to a point just beyond Arlington, and the section east of Harrison street, between Albany and East Dedham. These are already "business districts." The building limits in residential districts (and the whole of the Back Bay is thus treated) is one hundred feet for even the widest

streets, and no compensation is given to owners. The commission adds that if so many taller buildings had not been already erected, it would have liked to see 100 feet the height limit for the whole city.

**ARCHITECTURAL
ADVICE
AND A
PARK GIFT**

In the period in which these events were taking place in Boston, something was doing in the city's neighboring communities so that improvement interest for the month rather focussed on that section. A Municipal Art Society which had been recently organized in Cambridge announced its willingness to furnish without charge "expert advice" concerning the design of new structures, both public and private. Given the opportunity, it promptly made its promise good by advising upon the plans of the new building for the Cambridgeport Savings Bank. This opens a subject commanding such attractive highways and byways of thought that one cannot attempt to discuss it in a paragraph and the reader must be left to wander by himself, somewhat doubtful as to where he will come out! The adjacent cities of Malden and Melrose have been lately asked to accept a noble gift. The heirs of the late Elisha S. Converse announced that they would deed to the cities the park known as Pine Banks, of which about one-third is in Malden and two-thirds are in Melrose, if the cities would put it in charge of seven trustees, one of whom should be appointed by the heirs, and would maintain it. The park contains about seven hundred acres and is a magnificent tract of pine woodland, probably the most beautiful near Boston. Mr. Converse had put a fortune into its development and the gift was a notable opportunity even for small cities that had already the privileges of Boston's "Metropolitan Park System."

**SPRINGFIELD
RIVER
FRONT**

A little over two years ago, the ARCHITECTURAL RECORD gave a description of that thrilling exhibition of civic spirit by which the people of Springfield, Mass., had succeeded in buying back for public enjoyment a portion of their water front. It was explained that the railroad, to which the community had early relinquished the city shore of the majestic Connecticut, still maintained its tracks there; but that in buying to the tracks the people dreamed of bridging them by a viaduct, unless it should be possible to

shift them across the river. And now the people have the reward which their faith, courage and energy merited. The special bridge commission has officially reported to the City Council that the New York, New Haven & Hartford Railroad has agreed to sell to the city its right of way and adjacent property covering two and one-half miles of river front. It will bridge the river by a new structure at Longmeadow, and will bring its tracks up through Agawam and West Springfield, re-crossing the river and coming into the city by a new four-track bridge which is to be built by the Boston & Albany Railroad. Incidentally, a new union station will be constructed by the railroad companies. The section of water frontage which the people had succeeded in securing, by their extension of Court Square to the river, was only one block wide; but having got that entering wedge there is suddenly given to them now the chance which no one could have foreseen of a river park and drive two and a half miles long! Even the recent destruction by fire of the city hall, which was one of the buildings fronting on the square, enhances the opportunity for obtaining a scene of civic effectiveness.

**MUNICIPAL
MUSEUM**

With the break up of the Exposition in St. Louis, there came the usual effort to preserve intact some of the exhibits that were of special interest and value. These exhibits are among the good fruits of a "world's fair"—and such fruits are ever the better appreciated when preserved beyond their appointed season. The most important of the efforts, in a public sense, is that to establish in Chicago a permanent municipal museum, opening it temporarily with the unique collection of municipal exhibits that were on the Model Street and in some of the Exposition palaces. A committee was formed which includes among its officers Professor Vincent of the University of Chicago; President Hutchinson of the Art Institute, and Secretary Hooker of the City Club. The Mayor and the President of the Chicago Public Library are also members ex officio. Permission was secured to house the exhibit in unused rooms of the Public Library, and a fund has been raised for the purchase of articles that cannot be given and for various expenses. The idea that municipal progress may be helpfully shown by plans, charts, and models is comparatively new; but it has taken strong hold. The Chicago Fair contained no such exhibits, and the first attempts

in this direction, subsequently made in Belgium, were limited to a showing of artistic appliances for Belgian cities. The attempt was broadened at the Paris Exposition of 1900, but the result there was not nearly as complete as later in Dresden, where the German cities combined in a municipal exposition that was of international interest and that has had already a tonic effect upon municipal art and administration in Germany. In St. Louis, what may be called the municipal section of the fair was an experiment as far as America is concerned, and was presented in a tentative, half-hearted way. But some of its separate exhibits proved surprisingly good. As a class they were more popular than had been expected by any but a few enthusiasts, and it became clear that the exhibits of towns and cities, if brought together and comprehensively classified, had in them great possibilities, educationally and in practical helpfulness. Since Chicago has made public its plans for a municipal museum, an agitation has been commenced, under the auspices of the Twentieth Century Club in Boston, for the establishment of one in that city. The country could stand at least two more—one in New York and one on the Pacific coast.

NEW YORK IMPROVE- MENT COMMISSION

The report of the Improvement Commission, appointed by Mayor McClellan immediately after his inauguration, contains little that is strictly new. The Commission was appointed to consider such changes in the city plan, and such other improvements as might be practicable, that would enhance at once the utility and beauty of the city of New York. The Commission has given much serious consideration to its subject and has been made doubtless the recipient of a great many ideas of all grades of feasibility. If its report makes slight original contributions to the stock of ideas, it is not on that account unimportant or valueless. There have been ideas galore and the Commission has done a public service in examining and stating them in its preliminary report. Now it will sift. The very idea on which the Commission's appointment is predicated, that city improvements should be planned not by themselves but with regard to a comprehensive scheme, is of itself immensely important. In urging that the city's water front can be made more dignified and attractive by ordinances requiring a certain degree of uniformity in construction, that City Hall Park should be developed as a civic center, and that at the in-

tersection of Forty-second Street and Fifth Avenue the cars can be advantageously carried under the avenue by depressing a portion of Forty-second Street, the Commission brings forward projects that are fairly familiar. But in doing so it has emphasized their value, so bringing their accomplishment nearer than private citizens could have done, and it is accomplishment that counts.

SMALL SQUARES IN NEW YORK

It is characteristic of the energy and enterprise of the great corporate interests of New York, compared to that of the local government, that the two improvements, now under way which promise to add most distinction and novelty to its street architecture are being undertaken by railroad companies. The new stations of the Pennsylvania and New York Central Railroad companies will, of course, be imposing structures, which from their mere size will stand out among all the buildings of the city. But they will be distinguished by still another characteristic secured by a voluntary renunciation of private property on the part of those two companies for the purpose of obtaining more street room in the immediate vicinity of their stations. Both of these stations will be set back from the regular building line, so as to afford some sort of an approach and clearing ground for the immense traffic which will have to reach and leave the train shed; and these little squares will be a grateful, as well as an appropriate variation from the monotonous gridiron of the Manhattan streets. The fact that the companies were obliged to make their own squares testifies both to the inconvenience of a street plan which provides no appropriate and special places for big improvements of this kind and to the niggardliness of a city government, which does nothing to remedy a deficiency even after it has become manifest. There is big talk about what the City of New York should do and is going to do in order to make its streets and squares adequate to the demands, which are under the new conditions being placed upon them; but from year to year nothing is actually done, even in those cases where action is most critically necessary. The city has, indeed, begun to widen Delancey Street from the Williamsburgh Bridge to the Bowery; but it has proceeded no further than tearing down the buildings. Its officials stand helpless before the problem of providing an approach to the 59th Street Bridge. Their delay is partly a question of money; but it is curious that private corporations

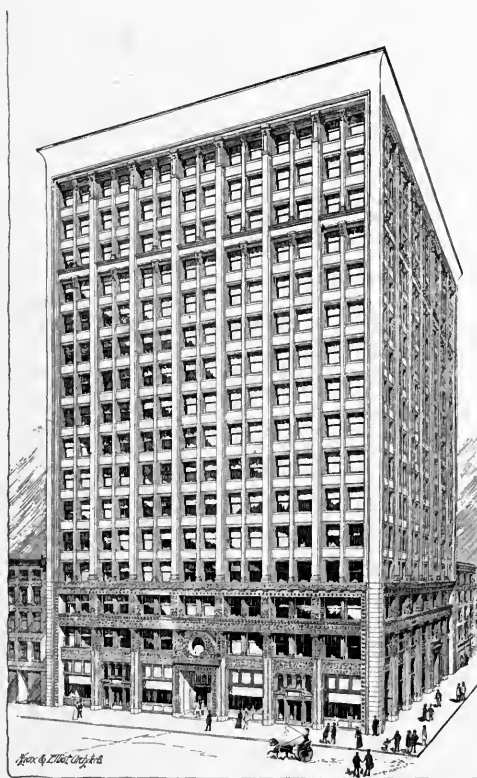
can afford to make street improvements, which the great corporation of the City of New York cannot afford to make.

**AEOLIAN
HALL
IN
LONDON**

On the following pages are some illustrations of the interior of the handsome building on New Bond street, London, recently opened by the Aeolian Company. The building itself is not new, having been occupied formerly by the Grosvenor Club; but it has been done over recently for its new lessees, and is an excellent example of the appropriate treatment of a business interior. The effect of these rooms is hand-

some, as it should be in the case of a company which must in a manner entertain its customers, but it is also simple and in excellent taste. In the hall there is a daintily furnished auditorium some 40x100 feet in size, with excellent acoustic properties, and so planned that each of its 400 seats is easily reached and give an unobstructed view of the stage.

The color scheme of the hall is a subdued but very tasteful one, dark green and crimson being relieved by the sparing use of ivory tints. The sides of the hall are wainscoted in mahogany to a height of ten feet, above which the walls and the high arched ceiling are furnished in ivory tints, and one side of the hall is lighted by windows overlooking the mews.



OFFICE BUILDING FOR J. D. ROCKEFELLER, CLEVELAND, OHIO.
KNOX & ELLIOT, ARCHITECTS

ROCKEFELLER BUILDING.

Cleveland, Ohio.

Knox & Elliot, Architects.



New Bond Street, London.

AEOLIAN HALL.



New Bond Street, London.

AEOLIAN HALL.

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



AEOLIAN HALL.

New Bond Street, London.



PAINTING ON UNDER SIDE OF PIANO LID.

THE PIANO PERFECT.

A well-known musician, reading one day a rather perfervid recommendation written by the pianist ——, regarding a certain fairly popular piano, made this remark: "This is all very well, even necessary,—for there is only

the superlative may very fairly be used without any drawback whatsoever. Acoustically considered, these instruments are without equal on this continent, and the musician who desires the best instrument that can be



PIANO DESIGNED FOR EDWARD L. DOHENY, ESQ.

one piano, the Steinway, which speaks for itself." The superlative degree, when used, may have a particular force for the emotions, but it always seems somewhat weak when passed over for consideration to the intellect. However, in the case of the Steinway piano,

obtained, must, as a matter of necessity, procure a Steinway.

But the good qualities of the Steinway have, until recently, been solely the possession of the musician.

In the past, whenever the architect or the

artist came into contact with the piano, be it the Steinway or be it any other make, it was only to be appalled. Was there anything more ugly? Many another useful instrument, built solely according to the lines dictated by utility, possessed at least a chance element of beauty. A yacht, a steamship, a locomotive,



PAINTING ON OUTSIDE OF PIANO LID.

many forms of machinery, indeed, possess a certain adventitious aesthetic value, the result of purely mechanical combinations.

The piano, however, in spite of its aesthetic purpose, remained, until quite recently, an object of terror for the architect or the decorator. It was too unmitigatedly ugly, too obtrusive and, so to speak, personal, to be subjected by, or absorbed into any style or scheme of decoration. A well-known architect said that the piano was a decorative figure that could neither be treated by multi-

plication, nor division. It was a recalcitrant unit.

It was quite appropriate that the makers of the finest piano instrumentally should also have been the first firm in this country to deal seriously with the piano artistically. They were not only the first to seriously take the piano in hand, but, soberly speaking, they are to this day the only house that possesses the equipment, the experience, and the serious intent to cope with the artistic problem of the piano-case. It is, of course, a com-



VIEW OF MR. DOHENY'S HOUSE ON UNDER SIDE OF PIANO LID.



MR. EDWARD DOWDALL.

paratively easy matter to take the old sort of piano-case, and instead of finishing it after the old cabinet-maker fashion, gild it, or paint upon it lady-like bunches of violets, or a distorted assemblage of fat and miscolored cherubs. This does not afford a solution. The piano-case remains, if anything, still uglier by reason of this misdirected sophistication.

No! The piano-case, to be treated at all, must be treated structurally and organically. The decoration must not be merely a part of the piano-case; it must be the whole piano-case through and through. This is no easy problem to handle successfully. Only a designer, who has tried his hand at it, has the slightest idea of the difficulty.

It is just in this very matter that one can now pick out at a glance the art-cases that have come from the Steinway studio. Indeed, they are to-day every bit as distinguishable and as distinguished as the Stein-

way piano instrumentally. The work that the Steinways have done is really a great and serious contribution to the progress of decorative art in this country. The very fact that the firm draws very liberally upon the best artistic talent in this country and abroad for its decorative paintings is, in itself, an important innovation, so is the sincere spirit of co-operation, which the Steinways extend to architects and others, thus enabling the architect to conform his designs to the mechanical requirements of the instrument; but of greater importance is the thoroughly artistic spirit and the liberal enterprise which characterize the Steinway Art Department, over which Mr. J. Burr Tiffany presides.

Some time ago we showed in these columns an upright piano designed for an Indian room in the residence of Mr. Edward L. Doheny, of Los Angeles, Cal. Since that piano was made, Mr. Tiffany has made a special trip to California to study the interior of Mr. Doheny's residence, in order to design a piano that would conform to the decorative scheme of the house, and meet, at the same time, the tastes of Mr. and Mrs. Doheny. This piano we illustrate herewith. It will be seen that this is a very noble instrument in Louis XV. style. The decoration was carried out by Mr. Edward Dowdall. The woodwork is gilded throughout. The photograph does not do the lines of the instrument full justice, and, of course, it is entirely inadequate as indicating the success of the color-scheme, and the high degree of finish that has been carried into the smallest detail of the case. The example we give illustrates, however, very well the high point to which Mr. Tiffany has developed the Art Department of Steinway & Sons. It is to-day one of the most notable studios in the United States. Added to the Steinway mechanism, it has made the Steinway piano as distinctly in a class by itself artistically as it has long been instrumentally.



PANEL ON SIDE OF PIANO CASE.

PARQUETRY FLOORS.

OF the many things entering into the construction and finishing of a fine residence or hotel, perhaps no one element is of as much importance as the floor. The floor is not only an essential part of each room, but if it is a fine parquetry floor it is decorative as well, and really gives to the apartment an individuality and charm not to be secured by the use of any other material.

perhaps the handsomest floor of all. It is done in the popular French style, and is in every respect the right floor for a spacious and magnificent room.

These floors are of the very best quality and workmanship that money can purchase. They are one inch in thickness and cost from fifty cents to one dollar a foot.

Messrs. Heaton & Wood, who furnished all the hardwood floors in the Bellevue-Stratford



BALLROOM, BELLEVUE-STRATFORD HOTEL. PARQUETRY FLOORS BY HEATON & WOOD.

In the Bellevue-Stratford Hotel, Philadelphia, Pa., are to be found some of the very finest examples of parquetry floors. In the ladies' reception room the design is worked out in delicate figures in mahogany, giving a pleasing and graceful effect. Again, in the Grand Dining Hall the border in rare tropical woods frames admirably the plain polished floor, and gives to the entire apartment a rich and distinctive tone.

The Ballroom, shown in the picture, has

Hotel, make a specialty of parquetry work, and do only the very best. The Astor Ballroom and others at Newport, and most of the fine residences in and around Philadelphia, and many in Pittsburgh and Washington, contain fine floors manufactured and laid by this firm. In the Showrooms of Heaton & Wood, 1706 Chestnut street, Philadelphia, are to be found a collection of fine examples of parquetry work which surpass anything of the kind shown in America.

INTERIOR FIREPROOFING.

[The following is the fifth of a series of Technical-Industrial Reports upon a certain System of Fireproofing, made to the Manufacturers by the well-known expert on Building Construction, Mr. William J. Fryer.]

The Hecla fireproofing material has one preliminary advantage over cement or similar mixtures when put in place in buildings, in that the setting is by the chemical action of the ingredients. There is no water to be expelled. It is a "dry" mixture, and not what is usually known as a "wet" mixture.

For Roof Surfaces

The Hecla material when laid has all the elasticity of wood and for floor surfaces has great advantages over the cold, hard surfaces of the usual fireproof materials employed for that purpose. For roof coverings it has superior merit over any other material, being without joints and free from any tendency to crack, is absolutely waterproof and not affected by snow, frosts, rain or heat. Roofs that have been down for four years exposed to varied temperatures show only weather-worn surfaces, which on being slightly sand-papered are restored to their original appearance.

Durability of the Hecla Material

The Hecla fireproofing material is such a simple material, and its component parts so well known, that at the conclusion of the tests made by Professor Woolson, of the department of engineering of Columbia University, it is no wonder that he should "unhesitatingly say that if a fire were to occur in a building where the Hecla material was used it would remain intact long after all the ordinary material surrounding it had perished." More than this, it is safe to say that in point of durability, outside of the question of resisting fire, the Hecla fireproofing will outlast any other material used in a building when subjected to the destroying agencies of water, steam,

moisture, acids, electrolysis, corrosion, vibration, heat and cold. It is a safe prophecy that the Hecla fireproofing material in a skeleton building will outlive the steel frame. Who can tell how long the steel frame will remain intact? No one. Enthusiasts and theorists say that the steel frame will last forever, qualifying their statements, however, with the proviso that the members of the steel frame shall be each thoroughly surrounded with an encasing material, such as cement, to protect the steel from contact with known foes. But perfect conditions are not attainable, and the improperly encased portion of a single column imperils the durability and strength of the whole structure. The failure of a beam or a girder would be unimportant, but the failure or sudden collapse of an interior column or a column forming part of the skeleton frame would bring condemnation on the entire building. It seems to be generally conceded that in the earlier skeleton buildings the columns were not properly protected, but it is claimed by many persons that in the later ones greater care has been exercised in respect to the thorough encasing of the columns. In

Question of Durability of Skeleton Structures

the earlier skeleton buildings the columns were painted, of course, and more or less slushed in with cement mortar, but on the outside four inches of brick was used for their enclosure against the weather. By law, eight inches were required for the enclosure in subsequent skeleton structures. Rain beats directly through four inches and even eight inches of brick work. In some cities flimsy hollow tile have been used for the outside encasing of the columns. Is there much doubt that rain water—or, say moisture—in formidable quantities reaches these columns? The paint on the columns lasts only a comparatively few years. Corrosion starts; the rust is insidious and unceasing when once it commences. Now, take

the latest skeleton structure when the importance of encasing the columns in a thorough manner is recognized and so intended to be by the architect. Through the carelessness or haste of a single workman in leaving one place on a vertical line of columns not protected or imperfectly protected, the whole scheme of protection fails. Instead of one careless or hasty workman, ten other workmen may have been equally culpable. Columns are made up of thin plates and angles, and if rust attacks the column in but one place and eats through the section, something startling must eventually happen. Steel rusts faster than wrought iron at first, and then slower, and that is about all that is known as to its durability; it is an untried material as to its lasting qualities. There are other destructive agencies besides moisture; steam from a leaky pipe joint is worse than water, and leaks from electric wires are quite as bad as the others in working deterioration of the steel. The columns are buried out of sight, and a false security exists at the present time. I have long been of the opinion that in an overwhelming majority of the skeleton structures thus far erected, trouble of the kind that I have indicated will come within fifty years from the time of erection. Such trouble would not mean, however, that the entire building must then be torn down. But the first building that gets in trouble from a diseased column will lead to official action requiring each vertical line of columns in all skeleton structures to be stripped of their surround-

ings and examined as to their condition of soundness. I have always advised the use of cast iron as the only proper material for columns that are to be buried out of sight; but in so doing, I admit I run counter to the engineering sentiment of to-day. I have seen a rolled wrought iron beam whose end was completely rusted away where it had rested in the wall of a building, and this beam had been in place considerably less than forty years.

The New York Elevated Railway has in more than one instance removed a defective column and substituted a new one; and this where all the parts are open to inspection and painted at intervals of time. The earliest skeleton building is not yet twenty years old, and while the steel frame in such a structure is subject only to slight vibrations due to the jarring by machinery and the slight swaying of the building by wind, yet in respect to deterioration by rust the concealed steel frame is likely to be affected to a far greater extent than the exposed structural work of a railway.

This speculative consideration of the possible length of life for the steel frame of a skeleton building has a certain value in going over the subject of materials used in the construction of important buildings, and as an aid to the proper appreciation of a material that can be confidently asserted to be durable, even though its use be of less relative importance than the frame work of the building itself.

“HECLA FIREPROOFING”—PATENTED.

The System of Real Fireproofing.

The Hecla Iron Works,

Brooklyn, N. Y.

THE MANUFACTURERS' STORY.

BY ONE OF THEM.

A well-known manufacturer of building material, speaking of the statement made recently by an architect in the "Record and Guide," to the effect that from 75 to 80 per cent. of all catalogues received by the majority of the members of his profession, are thrown away, said the story gave him "a shock."

"It is," he said, "only another instance of the 'rut.' Most of us do things one day because there is a reason for it, then we do the same act to-morrow, merely because we did it yesterday, and finally, we get into the condition that we believe the whole business is eternally right. We refuse to listen, and so settle down to the 'stand pat' policy."

"The architect, however, set me thinking. I thought I would investigate."

"Two months ago our firm issued a catalogue which we all thought was a very fine production. We spent a whole lot of time over it, and finally got together what we thought was a pretty good business tale, a lot of dandy illustrations, lovely paper binding, and a deal of expensive printer's work. We devoted a whole lot of time trying to fix on people to whom we would send that catalogue. We distributed about four thousand of them among the architects of the country. With that architect's tale of '75 to 90 per cent. waste' in my head, I determined to make some inquiries among the profession as I moved about town."

"The first firm I called upon were Messrs. ————. When I had finished with the special purpose of my call, I asked the head of the house whether he could let me see one of my catalogues. If I could see it, I alleged, it would save me a journey to my office."

"I guess we have got it somewhere around," said the architect.

"How do you keep catalogues? I asked."

"Oh," he replied, proudly, "we have a catalogue system."

"A gentleman who had charge of this 'system' answered the architect's call, and gleefully undertook to produce for me the catalogue I needed. In about five minutes he returned, however, and told me a little dolefully that the catalogue could not be found."

"But it must be on file," said the architect.

"No, I guess not," said the Chief of the Filing Department.

"Bring me the box," said the architect.

"The Guardian of the Catalogues returned with an ordinary letter-file marked 'E.'"

"It must be here," said the architect, proceeding with confidence to finger through several layers of booklets, each booklet of a different size, and, therefore, in a different position, some upside down, some askew, some orderly. He went through the file twice and finally he exclaimed:

"No. It isn't there!"

"Having read what Architect said, I suggested:

"Bring box 'M.' Perhaps it is there."

"I was going on the theory that my products might be classed as Machinery. And so they were. But instead of the catalogue there was a slip of paper in its place, notifying all searchers after information that that special piece of trade literature had been abstracted from the case by F—three months previous. The catalogue was never found. Time, 22 minutes."

"The next architectural firm I called on was that of Henry ———. They maintained a card index in addition, a more orderly system of filing. I asked for my catalogue. A young man turned readily to a little box of typewritten cards, which he finally closed up with a snap and a decisive—

"No, we haven't got it."

"What do you do with your catalogues? I asked."

"Oh! Most of them we throw away."

"How do you decide which to keep? I asked."

"He smiled. 'We haven't got any system for that,' he said. 'It all depends. Sometimes Mr. ——— tells us to put such and such catalogues away; sometimes I do it myself because I think the catalogues will come in handy; sometimes they get thrown out. It all depends whether we are in a hurry or not.'"

"Have you got the catalogue of so and so? I asked, naming one of my competitors."

"I guess so," was the reply, and again the little box of type-written cards was opened. This time the name was there, the name of one of my competitors. I felt chagrined and perhaps it was to cover my feelings that I said:

"Let me see that catalogue, will you?"

"The young man went to a nice oak drawer and fumbled for some time, amid a mass of dislocated material."

"'Somebody's taken that catalogue out,' he said, finally.

"'And hasn't returned it,' I suggested.

"'Well, it isn't as easy to keep track of these things as you think,' was the young man's final statement.

"The next architectural firm I called upon produced for me my catalogue. It was the catalogue for the year previous. This firm rather bragged of their catalogue system, and the man I talked to was put out a good deal when I pointed to him the figures 1903. He said he supposed that was the last catalogue we had issued. When I told him we were not such back numbers as that, he said:

"'Well, then, you didn't send it to us.'

"I assured him that we had him on our list.

"'Then we didn't get it,' he asserted conclusively.

"The next architectural firm (I am taking them in the order as I visited them, one or two a day, on my rounds) declared positively that they didn't keep catalogues at all, and didn't want any. They were a nuisance anyway. They didn't contain the right kind of information for an architect. The gentleman who gave me this information was evidently an extremist. There was no doing anything with him, so I left him to Providence and the working out of his own destiny.

"The next firm I visited were very particular about catalogues. They were ready to philosophize with me about them. They were greatly in need of catalogues, they asserted, but catalogues, if they were distributed as at present, were very cumbersome, very annoying.

"'We get thousands of them every year,' said the head of the house, and 'I have every one of them placed, as they arrive, on my desk. I mark those that I think I want and one of my young men files them away. Oh! I throw away at least 50 per cent., perhaps more than that, say, 60 or 70 per cent. Really, it is hard to say. I am sure I don't keep one in every three. We can't keep them. They are too numerous, too bulky, too difficult to get at. Space in an office like this costs \$2 a square foot, and cannot be given up ad lib to a file of manufacturers' printed matter, particularly when these manufacturers will not give us their catalogues in a handy form. The catalogue is a go-as-you-please business with them.'

"Another architectural firm told me they did not keep more than 10 per cent., and even those 10 per cent. were mostly 'somewhere else' when wanted.

"Another firm said:

"'We started a system once and it broke down, and we have never got it going since.'

"Isn't that an extraordinary confession to make? I asked.

"'Perhaps,' was the reply, 'but I don't believe the average architect has a system for even keeping certain track of his own plans and drawings. Of course I am not talking of the plans and drawings of buildings that are in the course of construction.'

"The result of my peregrinations showed me very clearly that the catalogue business needs to be amended, both in principle, substance and method. The present method is ridiculous in face of the facts. We need to standardize, and provide architects with something that keeps itself in order and is, so to speak, automatic.

"I also think that the duty of getting this adequate method of issuing catalogues inaugurated, must fall, necessarily upon the heads of the building material firms themselves. In my own firm, for example, we have a man who has taken charge of our catalogues for a good many years. He is as much in the rut as anyone else. I found, when I talked with him, that he had great faith in catalogues as managed at present. (His salary is \$1,800 a year.) He was sure they were kept by the architects. He knew all about it. "No," he hadn't ever been around himself to 'make positive inquiries, but that proceeding was hardly necessary. Everybody was issuing catalogues. Everybody did it. How could it be wrong?

"Why, man," I said, "it is because everybody has done it that the act has ceased to be an efficient one. If only ten or twenty firms issued catalogues, those catalogues might be of some value, but when 10,000 people issued catalogues, the value of the scheme is simply swamped."

As I left him I heard him saying to one of my other men:

"The old man has got some darn new idea. He don't think our catalogues pay!"

Our catalogues last year cost us a little over \$6,000.

The Architectural Record Co., Nos. 14 and 16 Vesey street, New York City, and 120 Randolph street, Chicago, Ills., has been investigating the "Catalogue Evil." The enquiry has covered the offices of more than one thousand of the leading architects of the country. The results are at the free disposal of any reputable building material firm. Five thousand architects and others (guaranteed) will use the New Catalogue Method devised and instituted by the Architectural Record Co. Firms issuing catalogues by the Old Method (90 per cent. waste), should send at once a postal card for information.

Mr. Boldt Tells How the John Wanamaker Store Completely Furnished the Bellevue-Stratford.

Presidents Office
Waldorf Astoria Hotel Co.

New York, *Jan. 27th 1908*

My dear Mr. Wanamaker

I want to express to you most heartily and freely the satisfaction I feel at the admirable manner in which your firm, through its Contract Department, has carried out the furnishing of the Bellevue-Stratford, in Philadelphia.

Of the magnitude of the work I need not speak in detail. To have furnished a hotel of this size in the ordinary commercial way without regard to the canons of taste or artistic requirements would alone have been a task of magnitude, ordinarily involving vexations and disappointments.

The furnishing of this hotel was a very different matter. It had to be harmonious throughout as well as artistic. It had to have the stamp not only of good taste but of individuality. It had to be the best in the world of its kind. Many of the hangings had to be woven specially. Many of the carpets had to be made after exclusive designs. The table linens not only had to be imported from the best centers, but had to have our monogram woven into each separate piece. Every article of furniture in the house had to be made for our special use. All the magnificent ballroom furniture had to be imported from Vienna; and so I might go on indefinitely.

I cannot refrain from saying, as a matter

of just credit, that in meeting these manifold requirements, you have kept up to *our* standard—and *yours*; and that the result, as it stands, viewed as a sample of hotel fitting, is the peer of anything in the hotel world to-day—one of which all Philadelphians have good cause to be proud.

In my long hotel career I have had, of course, many transactions with your house, and always with satisfaction, and it is, therefore, no novel experience which I now record; but I want to say a word more and to express my thanks, not merely for the satisfactory performance of a heavy contract, but for the unfailing attention and courtesy which marked that performance at every stage of the work. Your people not only gave us what we wanted, but wherever possible anticipated our wishes—a result largely attributable, of course, to excellent organization and exceptional experience in a special business field; but back of them I could not fail to note at all times the masterful resources before which all obstacles appeared to melt away. My entire staff concur with me in this volunteered letter. Indeed, it gives me great pleasure to write it, and with kindest regards and best wishes, I beg to remain, my dear Mr. Wanamaker,

Ever faithfully Yours
Geo. B. Brown

THE BELLEVUE-STRATFORD HOTEL.

DETAILS OF CONSTRUCTION AND EQUIPMENT.

The Bellevue-Stratford, Philadelphia's newest and handsomest hotel, was designed by Messrs. G. W. & W. D. Hewitt, and the general contract was entrusted to the Geo. A. Fuller Co. The American Bridge Co. furnished and erected the steel frame which is protected from corrosion by two coats of graphite paint made by the Detroit Graphite Manufacturing Co. The electrical and mechanical engineering was undertaken, in its entirety, by Messrs. Francis Bros. & Jellett. The ornamental metal work, including the elevator grilles, was executed by the Winslow Bros. Co.

Much attention has been paid to the decorative features of this monster hotel. The parquetry floors were manufactured and

Messrs. Sharpless & Watts are responsible for the beautiful tiling found in this most beautiful building. The same firm also supplied the soap-stone hearths and the medicine chests, together with other similar work. All the enameled brick below the ground level, aggregating 400,000 brick, was supplied by the American Enameled Brick and Tile Co. This vast area of enameled brick furnishes the lining of the kitchens, bakery, refrigerating and similar rooms. The cooking equipment was furnished by the Duparquet, Huot & Moneuse Co. The American Laundry Machinery Co. furnished the laundry appliances, making this particular laundry one of the best equipped and most up-to-date in existence. The repair shop, upholstery room and ironing room are thoroughly protected



THREE OF THE CHAIRS IN THE VIENNESE ROOM.

laid by Messrs. Heaton & Wood, and the excellent artificial marble work, including seventy-six large columns, is the product of the Mycenian Marble Co. The stained and leaded glass was designed and executed by Alfred Godwin. The furnishing of this fine hotel was placed in the hands of John Wanamaker, and Mr. Boldt, the lessee, has spoken in terms of the highest praise of the results achieved. Most of the furniture is after special designs, and harmonizes perfectly with the style of decoration of the various apartments.

These chairs, for the Viennese room, were made by the Pooley Furniture Co., and are excellent examples of the furniture of the period. The same firm supplied all the furniture for the hotel.

from fire by automatic sprinklers, the product of the International Sprinkler Co. The Lamson Consolidated Store Service Companies have installed their famous pneumatic-interchange tube system, and the Loomis-Manning Filter Co. has furnished the hotel with a modern filtering plant. A watchman's clock system has been put in by the Holtz-Cabot Co., who are leaders in this particular branch of electric installation work. The safe was made by the York Safe & Lock Co., while the safety deposit boxes were installed by the Lowrie Safe & Lock Co. No expense has been spared to make this one of the finest hotels in the country, and none but first-class craftsmen had a hand in its construction, equipment and furnishings.

THE ARCHITECTURAL RECORD

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A New Use of Old Forms.

Two Houses by Mr. John Russell Pope.

The American use of European architectural and decorative forms has passed through a number of phases. There was a time toward the middle of the century when our imitation of the historic styles of European domestic architecture aspired to be faithful, but was too ignorant to succeed. The architect of 1850 or thereabouts, particularly in the vicinity of New York, designed in any style his client pleased, and was as willing to supply a Florentine villa as he was to furnish a Gothic cottage, or a Swiss chalet. He believed, in the depths of his innocence and ignorance, that the houses, with which he spotted the landscape, were the "real thing," and were made authentic by the high sources from which they derived; but as a matter of fact his whimsical copies, in which a frequent ponderousness of construction was combined with restless frivolity of effect, generally bore the same relation to their models as a child's drawings do to the contour of the human face. During this period the only way in which a desire for originality expressed itself, was in the occasional combination of several different "styles" in one miscellaneous and eccentric mass, as in the case of "Arms-mear," built by Col. Colt near Hartford. During the next important period of residential construction, which did not occur until the early years of the eigh-

ties, the imitative tendency, which still dominated the design of brick and stone, if not of frame houses, was expressed generally in well-informed reproductions of European styles; and these copies, while they had the merit of being scholarly and of familiarizing the American public with authentic historic forms, were designed with a view to stylistic fidelity rather than to the complex and varying requirements of local propriety. This phase, although it was an advance upon its predecessors, proved to be quite as evanescent. American architecture could not be satisfied with the well-informed copy any more than it could with the ignorant one; and at the present time, although both the careless and the careful copyist are still in evidence, the best of the younger American architects are seeking, in domestic, as well as in business buildings, to reach a higher degree of personal expression and local propriety.

It is in the light of this demand both for personal expression and local propriety that the two houses of Mr. John Russell Pope, which are illustrated herewith, can best be understood. Mr. Pope represents both in his training and in his point of view the best equipment of contemporary American architecture. His preparation for his work lacks nothing either in variety or completeness. He has studied in this coun-



THE ENTRANCE TO THE HOUSE OF MR. W. L. STOW.

Roslyn, L. I.

John Russell Pope, Architect.



THE SOUTH SIDE OF THE HOUSE OF MR. W. L. STOW.

Roslyn, L. I.

John Russell Pope, Architect.



ENTRANCE HALL IN THE HOUSE OF MR. W. L. STOW.

Roslyn, L. I.

John Russell Pope, Architect.

try and at the Beaux Arts; he has drunk his share of the wine of Italian travel and residence; he has had the benefit of close personal association with one of the foremost of living American architects. Yet although his training has been thorough-going and his preliminary associations excellent, he is not in the least the victim of his training and his associations. Like a number of the Beaux-Arts graduates his rigorous schooling has not diminished his per-



FORE COURT OF STOW HOUSE.

sonal flexibility and initiative. He seeks to combine individual expression with technical precision; and he seeks this individual expression in the right sort of way.

It is important that an architect who seeks individual expression should seek it in the right way, because there are in all the fine arts a good many wrong ways of going about the search. One of the worst of these is the attempt to secure originality by conscious effort. Originality like happiness is well enough, provided it accrues as the inevitable, but, so far as the intention goes, as the accidental fruit of a man's work; but the pursuit of originality is fatal, because it seduces the architect or the artist to make his work primarily different from that of other people. This is, of course, the fallacy and the difficulty which cheapens and sterilizes so much of the "New Art." The only originality worth having is that which issues unconsciously from the frank

and well-informed treatment of an artist's special task or material. In the case of an architect this desirable originality must derive from his ability to adapt his design to the conditions, which it is required to meet; and in any particular case this group of conditions includes many different members, some of which are frequently ignored. The design of any particular dwelling, for instance, should be adapted to the personality of its owner and his manner of life; to the site on which the dwelling stands, the character of the neighboring country, and the scale of the surrounding foliage; and finally to what may be called the technical logic of the design itself—meaning thereby the satisfactory composition of the strictly architectural elements of the design simply as a matter of form. A house which really meets all these requirements is certain to be an original individual piece of work, just because it completely satisfies a special set of conditions. Originality is imposed upon an architect who thoroughly masters a particular job.

Such originality is independent of the sources from which the designer derives his favorite architectural forms. The notion that he can create these forms out of his head or by means of the direct inspiration of Heaven must, of course, be at once dismissed. In all the arts there exists a great and living tradition—a high and authoritative convention derived from the best foregoing practice, and an architect even more than a painter cannot hope to do mature and finished work, unless his mind has been steeped in the traditions of his art. This study of architectural history too often furnishes the architect merely with a set or forms, instead of with a sense of form and a set of principles; but a man who has any power of individual architectural thinking will be equal to the task of giving the forms, with which his mind is furnished, that special rendering, which the conditions of a particular design demand. The forms which he prefers will depend partly upon his personal taste and partly upon the scale and the cost of the house



TERRACE OF THE HOUSE OF MR. W. L. STOW.

John Russell Pope, Architect.

Roslyn, L. I.



FORMAL GARDEN OF THE HOUSE OF MR. W. L. STOW.

ROSLYN, L. I.

John Russell Pope, Architect.



VIEW FROM THE STEPS OF THE TERRACE.
(The House of Mr. W. L. Stow.)

Roslyn, L. I.

John Russell Pope, Architect

he is designing; and he will be at liberty to mix styles as much as he pleases, provided he preserves the integrity of his composition and does not violate the logic of any particular style.

The individual expression which Mr. Pope has succeeded in achieving has been achieved in the way described above. The two houses illustrated herewith are intended fully to satisfy the demands of particular owners, who wanted to build upon certain sites; and in meeting these different demands Mr. Pope took his forms from any source which suited his taste or convenience and gave them an individual and a local rendering. The two houses are alike in certain respects, because the owners wanted to put up the same kind of an appearance, and because Mr. Pope's disposition and training has made him prefer particular architectural forms. On the other hand they also differ radically because of certain obvious variations in scale, cost, and situation. The similarities and differences are all significant, and are worth particular attention.

Both of these houses show plainly the result of Mr. Pope's French training, yet both are, also, as far as possible from being merely Beaux-Arts products. The architect has combined suggestions and forms taken both from Italian and French sources. The stucco house with a red tile roof is of course derived from the Italian Renaissance villa. The detail on the other hand is very largely French. The general effect is neither one nor the other, but is probably more French than Italian. But whether French or Italian, the effect is eminently handsome and striking, and there is even something about it, which can fairly be called American. I am aware that many architectural commentators will be unable to discern anything American in houses, which preserve so much of the traditions of European domestic architecture; but such houses as these undoubtedly possess in a certain degree the quality of local propriety. An American house does not necessarily mean a house which is not European; it means primarily a house which is adapted to the needs and tastes of its American

owner. The architect is first of all under obligations to please his clients, and if he designs a house which lacks the propriety of being adapted to its owner, it will be wanting in its chief reason for existence—in the most fundamental propriety it can possibly possess.

The means taken to adapt a house to the tastes of its owner will differ considerably in the cases of different individuals; and they also depend a good deal upon the part of the country in which the individuals live. The demands of the rich western business man differs considerably from those of his eastern prototype. But there can be no doubt that the house of a rich man of the East would as a rule be wholly inappropriate unless it attained, as Mr. Pope's houses do, an eminently striking and handsome effect. Such Americans want to live in buildings which express frankly and fully our youthful self-assurance, our abounding prosperity, and our pleasure in the brave appearances of things. It is the endeavour to satisfy this demand on the part of their clients which has led the architects of expensive houses to make these houses first of all somewhat spectacular in appearance; and in many cases the attempt to be brave and spectacular has degenerated into mere flamboyancy. Mr. Pope, however, is in no danger of falling into any such excess. His two houses are, as they are intended to be, smart and gay; but they are, also, careful and in some respects sober pieces of architectural design. They show the result of the most conscientious study in the scale and the composition of the masses, in the proportion of the different members, and in the adaptation of the house to its site. Ornament is sparingly and appropriately used. It is, perhaps, in this respect more than in any other that Mr. Pope shows his independence of the familiar Beaux-Arts convention which disregards simplicity and sobriety of decoration. His ornament is never superfluous. It is always subordinated to the effect, which he seeks by adapting the house to its location and by the proper disposition of its masses and openings.



THE LIVING-ROOM IN THE HOUSE OF MR. W. L. STOW.

Roslyn, L. I.

John Russell Pope, Architect

In the cases of these two houses the characters of the two locations were fundamentally different. The Stow dwelling is situated on the crest of a high hill overlooking a considerable stretch of country. On the other hand the site of Dr. Jacob's house in Newport is a comparatively small plot, located in semi-urban surroundings. Consequently in the former case the problem was to design a house and its approaches which would cap the hill and command the view, while in the latter case the object of the lay-out was to shut out the surroundings, and to make the enclosed grounds, which amounted only to three and two-thirds acres, look complete within these narrow limits and so far as possible spacious.

The Stow estate consists, as I have said, of a high hill, on the top of which the house was to be situated. The acreage of the hill is very considerable, but its summit is comparatively small. Careful adjustments had to be made in order to arrange for the placing of so large a house on the area provided by the crown of the hill. The great desideratum was to obtain sufficient space on the south front of the house, from which the view was to be seen, and the location of the building was consequently pushed as far north as possible. The consequence is that the fore-court on the north side, to which the main driveway leads, and on which the main entrance opens, looks small compared with the scale of the house; but as long as some sacrifice was necessary it was better to sacrifice the fore-court than the terrace. In this way, and by means of a good deal of grading, Mr. Hope has obtained plenty of space on the south side, where it was most necessary. The object of the whole lay-out was to make the room for a broad terrace, from which the very beautiful and extensive view was to be enjoyed, and by virtue of which the house would really fit the hill and crown its summit. This terrace outlines with a low parapet the level of the hill-top, and overruns by a good many feet the ends of the house. At each end a broad flight of steps leads down to the level of the garden, which is considerably low-

er than that of the house; and which is enclosed on three sides by the walls of the terrace and of the steps. On the fourth or south side, it is, of course, entirely open; but the formal treatment is continued by another and still more spacious terrace on a slightly lower level. This second terrace is kept entirely green and is bounded by a walk leading around its outer line and by a hedge. The whole arrangement makes excellent use of the space at Mr. Pope's disposal, and is admirably scaled. The effect, as it is shown in the accompanying illustrations, is not all that it should be, because the rigid lines of the garden architecture are unrelieved by any sufficient planting. The proper disposition of masses of shrubbery would serve to soften and relieve the architecture, so that its white surfaces and straight lines would count very differently in one's total impression of the place. As this is what Mr. Pope manifestly intended, his work must be judged in the light of such a modification. His treatment is, of course, fundamentally architectural, as it should be—particularly in relation to the location of the house; but the proper planting, after it had obtained its growth, would have subdued this architectural effect more to the tone of its natural surroundings.

The design of the house is as interesting as that of the lay-out. The building consists of a central member with wings projecting on both sides of both ends. The central division is distinguished by heavy engaged columns running through two stories, a plain frieze above, which continues around the whole building, and a parapet. On the south side the engaged columns dominate the length of the façade between the wings; on the north side they frame the entrance doorway and the window of the main hall. The wings are more simply treated, and an excellent effect is obtained by the plain surfaces of the walls, in their relation to the deep reveals of the openings. These reveals are unusually deep on the whole building; but they are particularly deep in the windows of the wings. They help, together with the strong simple



APPROACH TO THE HOUSE OF DR. JACOBS.

Newport, R. I.

John Russell Pope, Architect.



ENTRANCE TO THE HOUSE OF DR. JACOBS.

Newport, R. I.

John Russell Pope, Architect.



GARDEN SIDE OF THE HOUSE OF DR. JACOBS.

John Russell Pope, Architect.

Newport, R. I.



THE GARDEN SIDE OF THE HOUSE OF DR. JACOBS.

Newport, R. I.

John Russell Pope, Architect.



THE GARDEN BELONGING TO THE HOUSE OF DR. JACOBS.

Newport, R. I.

John Russell Pope, Architect.



THE GARDEN BELONGING TO THE HOUSE OF DR. JACOBS.

Newport, R. I.

John Russell Pope, Architect.

lines of the structure, and the sobriety of the ornament to give it a solid dignified appearance. Its dignity of effect would, I think, have been enhanced by the substitution of stone, for stucco, which was the material Mr. Pope would have preferred to use. The color of the plaster has, however, more grey in it than usual, and is in itself both pleasing and appropriate. It should be noticed, also, that the plan of the house enables its oc-

lay out than is usually the case with Newport residences; but this ground did not command any view. It had to be treated exclusively in relation to the house, and with the object in mind of creating a group of self-contained domestic architectural and landscape effects. In composing these effects he had two advantages. The size of the house was not such as entirely to throw it out of scale with the dimensions of the grounds; and the grounds themselves



THE HOUSE OF DR. JACOBS, FROM THE LAWN.

Newport, R. I.

John Russell Pope, Architect.

cupants to obtain full advantage of the lay-out. The living-room and the dining-room both open up on the paved recess between wings on the south side of the house, thus getting full benefit of the exposure and the outlook. The living-room looks larger in the illustration than it is in fact. Its dimensions and proportions are those of a moderate-sized apartment—quite in scale with the life and the occupations of a modern American family.

The place of Dr. Jacobs at Newport is less of an estate than that of Mr. Stow, and more of a country villa. Even in this instance Mr. Pope had more ground in the immediate vicinity of the building to

were partly enclosed by a fine growth of trees. The enclosure was, however, by no means complete; and particularly on the south side, a good deal of planting was necessary for the purpose of shutting in the garden and shutting out the neighborhood. Here again the approach is from the north. The road leads straight up to the house, and runs equi-distant between two big spreading oaks which screen the two wings of the house and disclose only the entrance. The entrance is situated in the angle of the wings, and is emphasized by pilasters running up through two stories, and by a parapet which breaks the line of the roof.



IN THE GARDEN OF DR. JACOBS' HOUSE.

The dining-room and living-room are situated on the south side of the house, and are planned so as to be used in connection with the gardens for summer entertainment. The French windows give upon a small terrace, outlined by a parapet. A few steps lead down from this terrace to another terrace on a slightly lower level; and from there another short flight of steps leads to the garden. The garden is very simply treated with comparatively few architectural features. At the end opposite to the house there is a pergola, back and on the sides of which deep masses of cedars have been planted. The effect of this terminal feature, of which the scale is perhaps somewhat small, is extremely charming. The treatment of the garden is very open without much planting; all is rather inconspicuous. The purpose of his arrangement doubtless is to make the available space go as far as possible, and Mr. Pope has succeeded in attaining this object. But the minor features entailed by this arrangement look somewhat episodic and the gar-

den furniture has not in all cases been very happily placed. The green lawn also has the appearance of being cut up too much with white paths. These, however, are minor blemishes. The place is on the whole a very skillful example of a stucco villa, which in its gaiety and smartness has not lost the more sober architectural merits.

Indeed the impression which Mr. Pope's work makes upon the writer can best be summed up in the last sentence of the foregoing paragraph. It is expressive of the life which people lead at Roslyn and at Newport, and it attains to this expression without any loss of architectural dignity and propriety. On the contrary Mr. Pope's work is always from a technical point of view sound and competent. He not only knows what he wants, but he knows very well how to get it; and it is this combination which gives his work a thorough consistency. By consistency I do not mean, of course, purity of style. I mean that quality in his work which enables him to introduce a telling unity of



IN THE GARDEN OF DR. JACOBS' HOUSE.



THE DRAWING-ROOM OF THE HOUSE OF DR. JACOBS.
Photo by Alman & Co.

John Russell Pope, Architect.

Newport, R. I.

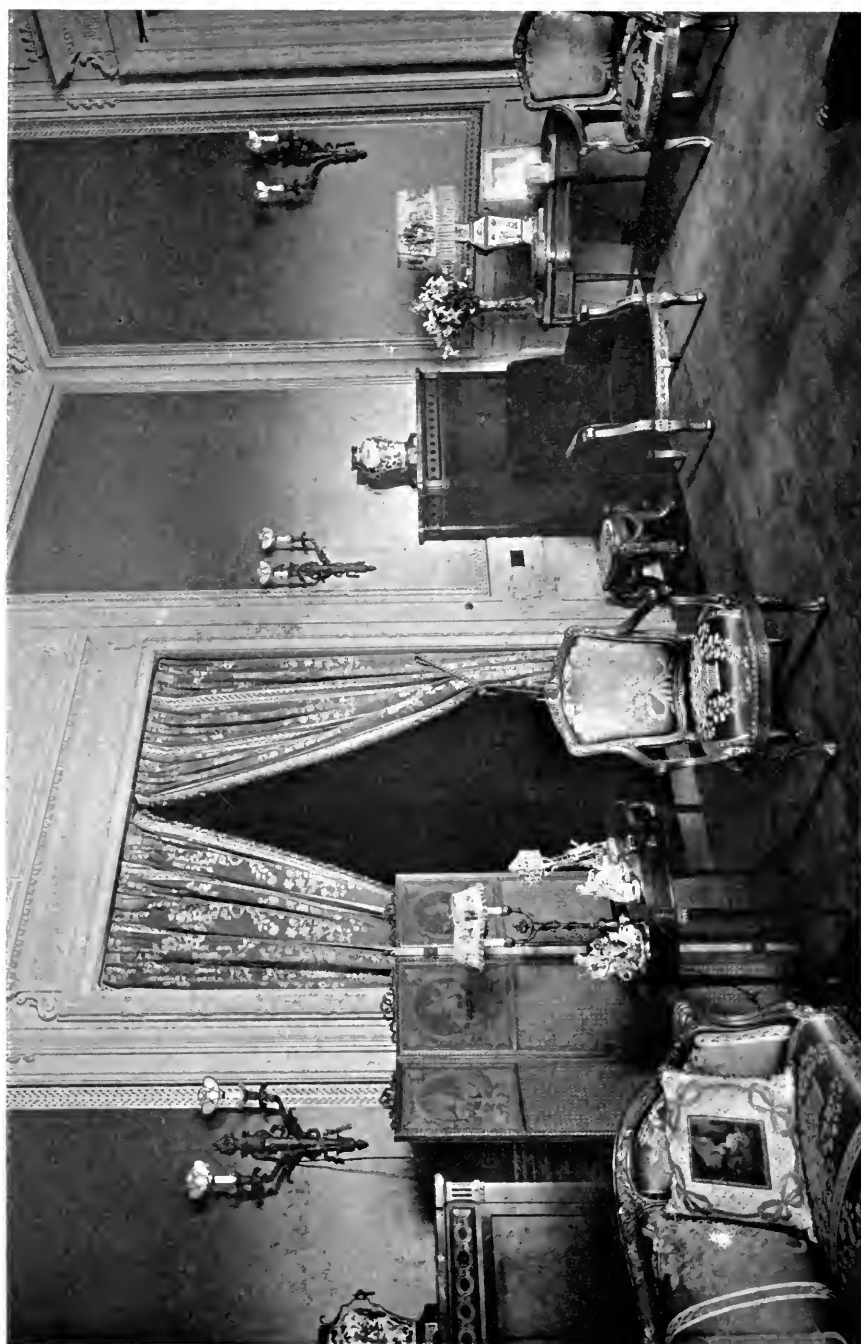


THE DINING-ROOM OF THE HOUSE OF DR. JACOBS.

Photo by Alman & Co.

Newport, R. I.

John Russell Pope, Architect.



SITTING-ROOM IN THE HOUSE OF DR. JACOBS.
Photo by Alman & Co.

John Russell Pope, Architect.

Newport, R. I.



ENTRANCE TO DR. JACOBS' HOUSE.

ENTRANCE TO DR. JACOBS' HOUSE,
FROM THE GARDEN.

effect into the miscellaneous forms he uses, and into all the elements of the design. The fusion of these miscellaneous forms is by no means complete; but it is complete enough to give Mr. Pope's work a marked individual stamp. In spite of certain resemblances to other handsome American houses, Mr. Pope's buildings belong in one sense thoroughly to him-

self just as they belong in another sense thoroughly to their owners. The style of these houses differs not only from any specific historic precedent, but from any similar American houses; and this individual stamp has been obtained, not in any arbitrary way, but by the candid and thorough treatment of two special problems of design.

Herbert Croly.



A WALL DRINKING-FOUNTAIN OF ROOKWOOD WARE.



ADDITION TO THE ROOKWOOD POTTERY.

Near Cincinnati, Ohio.

Elzner & Anderson, Architects.

Rookwood Pottery.

The name "Rookwood Pottery" is now easily a household word throughout the Art World, and the quaint monogram "RP" is as familiar to the lover of *faïence* as any of the old marks many times its seniors. As the passing years add their respective flames to the corona encircling the symbolic letters, the charm increases, and we study with growing interest the monograms of the clever artists that come and go, whose remarkable individualities collectively make up the distinctive character of of Rookwood ware. And yet the Rookwood of to-day is a very different thing from that of the early days when its fame was first heralded. Then it was only pottery and small articles of *faïence*. Now, although the pottery ware is still supreme, the workers are developing a comparatively new field, and give fair promise of establishing the work upon the same high plane of excellence as has long been enjoyed by the pottery ware, and the indications are that they will accomplish this in a much less space of time.

The Pottery was founded in 1880 by Mrs. Maria Longworth Storer, who named it "Rookwood" after her father's country estate near Cincinnati. Mrs. Storer was herself the chief worker and artist, but had associated with her a number of ladies, many of whom had made original experiments. This little band of decorative pottery enthusiasts worked hard and continuously, and soon attracted the attention of the people of taste to their new ware, which came as

a sort of revelation. It was practically a re-discovery of a lost art. The decorations were made entirely on the moist clay before any firing, the colors being mixed with clay, and becoming part of the ware itself. The pieces after the decoration had been applied, were then fired into biscuit and the various glazes applied in subsequent firings. This method has been employed continuously till the present time, and constitutes the beautiful underglaze, which created such interest at the time of its introduction, and which still is, and will undoubtedly continue to be a constant source of pleasure to all art lovers.

"The clays in use for all purposes are entirely American, and largely from the Ohio valley, and it was the use of these native clays that first inclined the color quality toward yellows, browns and reds, and the decorative medium lent itself to a rather luxuriant style of ornament in rich arrangements of warm color, all of which the transparent glazes merged in deep mellow tones. As the command of material has strengthened, the beauty of the ware has steadily gained in a harmony of all the elements which compose it, until form, color, decoration and glaze combine to produce those things of beauty which elude all attempts at imitation, and make Rookwood a distinctive novelty in the world's ceramics."

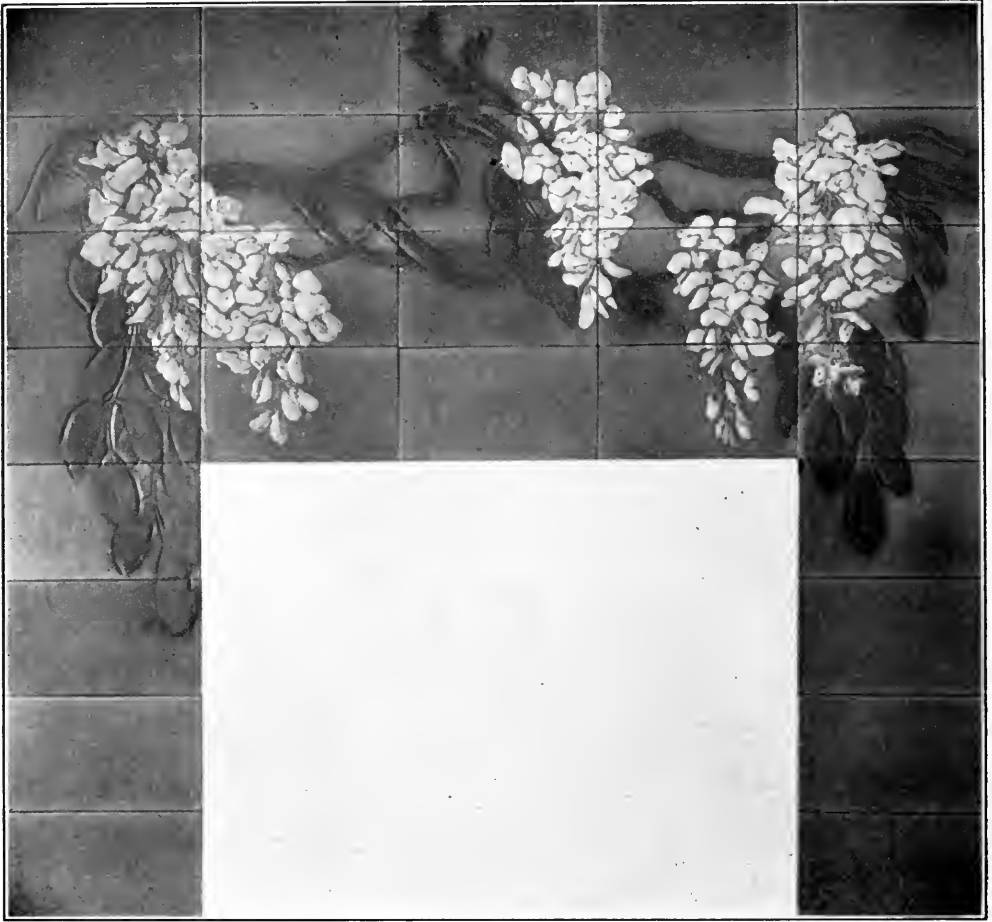
Much might be said concerning the many rare effects which the genius of the artist has produced, but here we can only refer to some of the more import-



WORK SHOP OF THE ROOKWOOD POTTERY.



ROOKWOOD TILES ON A CHIMNEY BREAST.



ROOKWOOD TILES FOR A MANTEL.

ant ones. The early departures from the warm yellows and reds were in the direction of rich greens and blues, which are effectually applied to the dark tones of the former. The "Iris" and "Sea Green" effect are as peculiar to this ware as was the "Tiger Eye," which was one of the early developments, and which proved to be the forerunner of a similar class of effects produced later by other celebrated potteries. In 1896, the variety known as "Mat Glazes" was first produced at Rookwood, and in a few years attained great prominence. In this the special quality is beauty of texture, through a great range and variety of color, and an extensive line

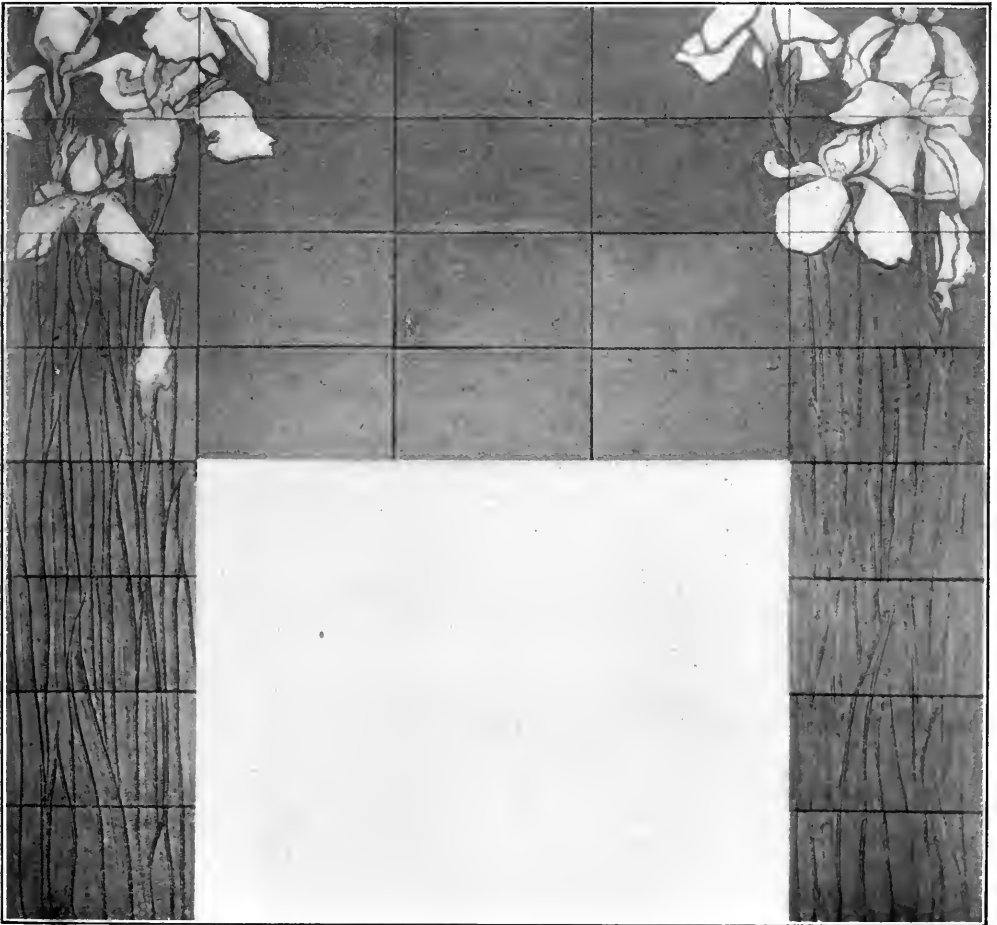
of ware was produced, illustrating the endless resources of the artists.

It must be noted that the pottery is conducted not on the prevailing factory system, which multiplies the production of one article or design, until the cost of its manufacture is reduced to the most economical basis. On the contrary the effort is to attain a higher art rather than a cheaper process. A free and liberal spirit prevails, and the workers are surrounded with every opportunity to develop the individual artistic feeling. They come mainly from the student body of the Cincinnati Art School, near by, and many remain a long time in the service of the pottery,

enjoying to the fullest the unusual advantages for study and development. It is only in this way that it is possible to produce really new ideas: by co-operation and free intercourse and discussion. By this path all knowledge is advanced, and it remains only for the individual to plant his own stamp on this or that degree of development. So "Rookwood" has grown and progressed, until now it has entered the great and boundless field of architectural decoration. At first there were timid efforts at the successful production of plain tiles for mantel facings made in solid colors of mat glazes. These tiles were large in size and called for considerable technical skill in firing. This

once asqured, it was but a natural step toward decorating the tiles, and from painted decorations the artists were rapidly led to combinations with modeled effects.

It became readily apparent that even in the first efforts, although the field was limited, there were untold possibilities awaiting development at the hands of some capable artist. From mantel facings, it was but a natural step to mantels themselves, and we find some interesting designs, even in the early attempts. They reveal a bold, fearless, free treatment, which thoroughly preserves the character of the material, much more consistently than is the case where the designer is not a clay worker.



ROOKWOOD TILES FOR A MANTEL FACING.

This emphasizes the necessity of designers having thorough knowledge of the material in hand; for, without such knowledge, no true work of art can be produced. This is especially true of *faïence*. A design may be ever so care-

corners are all gently rounded off, and then when the glaze is applied, filling angles and depressions, a beautiful soft effect is imparted, having all the value of the pottery ware, and avoiding that awful cast iron effect, which is so com-



A MANTEL OF ROOKWOOD WARE.

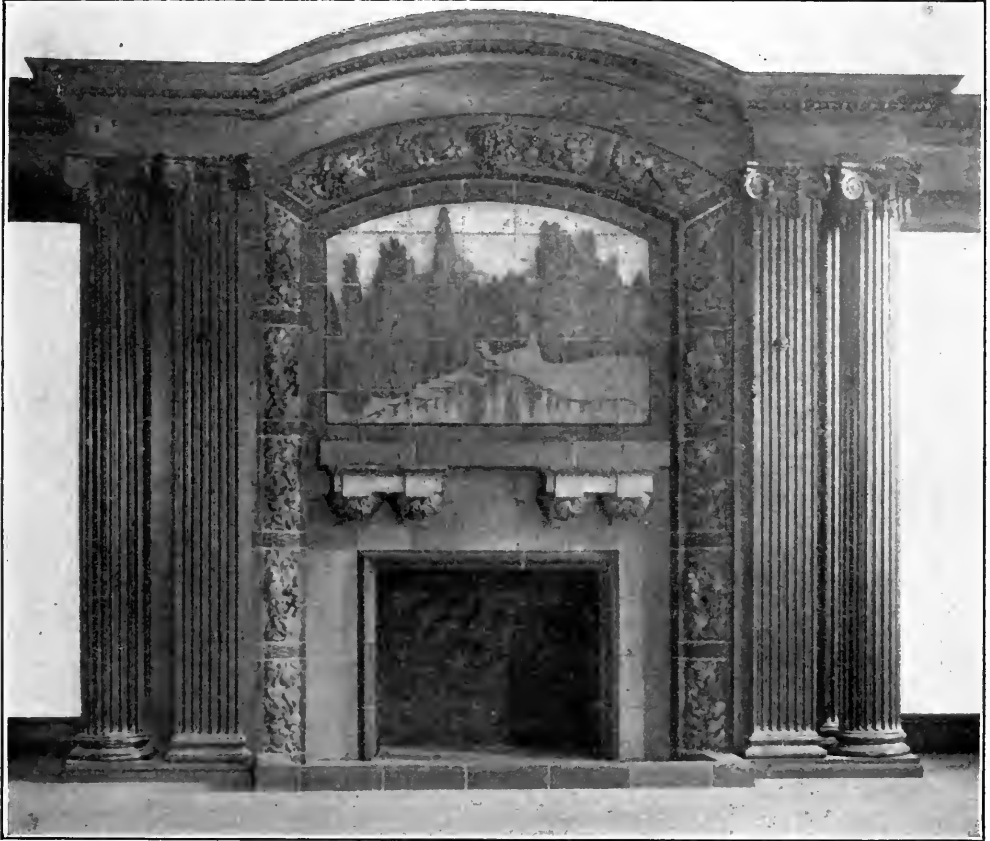
fully drawn on paper, but unless the draftsman has had practical experience in the handling of clay, he must expect his design to undergo serious changes at the hands of the modeler to save it from failure.

In this new Rookwood ware, one of the striking characteristics is the softness of the lines. In fact there is scarcely such a thing as a line. The edges and

mon to the ordinary architectural terracotta. This is well exemplified in the work recently made for, and installed in, the 23rd, 79th, 86th and 91st Street Stations of the New York Sub-way. Here the decorations consist of a moulded cornice with egg and dart ornamentation. At the bearing of the ceiling beam a heavy console is provided, and at each end of the panel between the beams, a

shield bearing the number of the station. The colors are chiefly soft grays, light blues and yellows with touches of rich reds and greens. Beautiful as this work is, the general design is somewhat at fault, in so far as scale is concerned. Some of the details are too small to be effective at the distance from

filled in with rich colored mosaics. The function of this *faïence* treatment is to form a transition between the mosaic panels and the stone architecture of the design. The columns and tracery of the *faïence* work are light gray, approximately of the same tone as the stone, but are outlined in red and surrounded



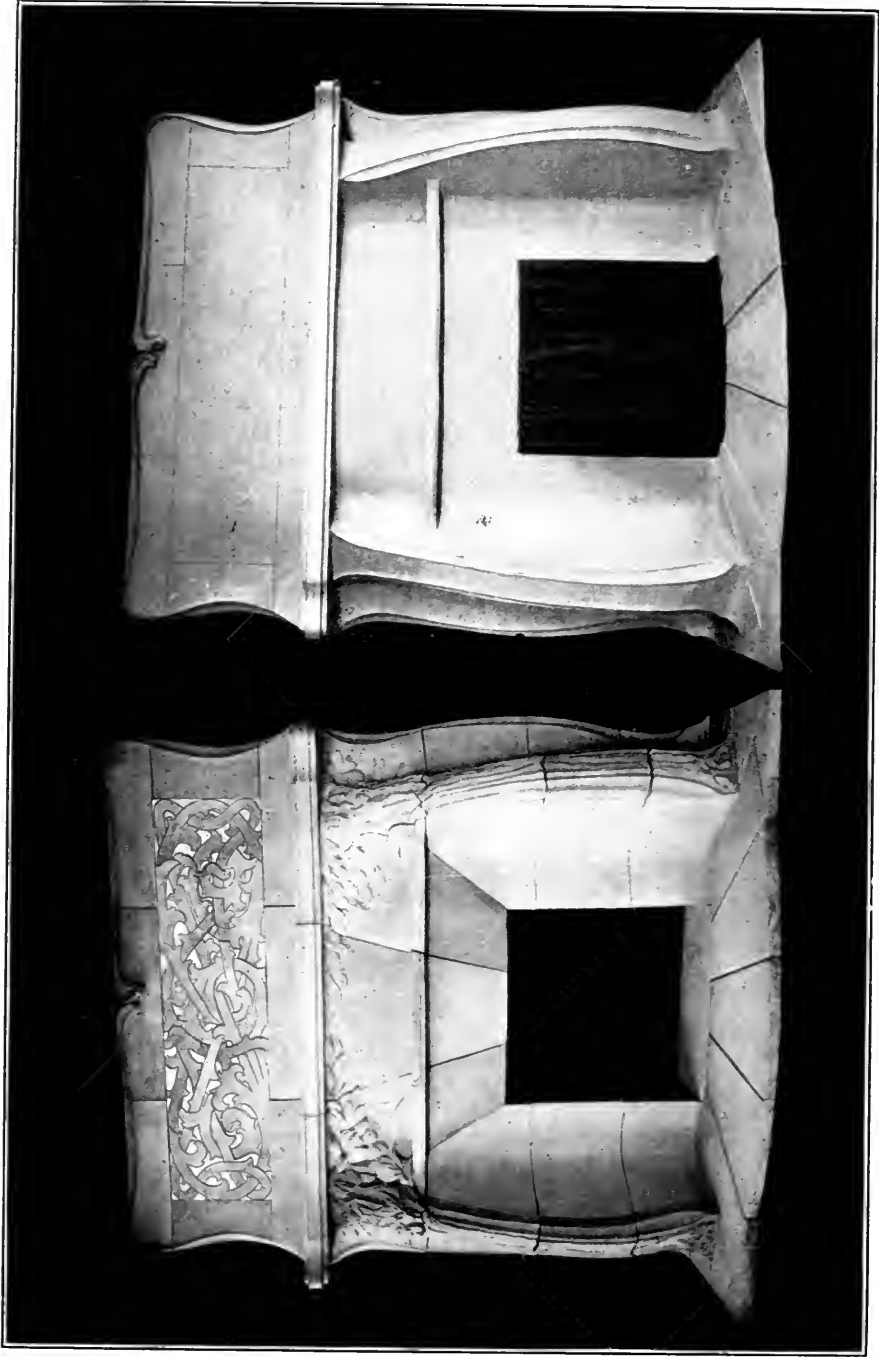
A MANTEL OF ROOKWOOD WARE.

which they must be viewed, and consequently the work suffers to this extent.

Another notable example of the new Rookwood wear, is the *faïence* reredos in the St. Paul's Episcopal Church, Rochester, New York. In this design the *faïence* work occupies the main body of a large field enclosed within a general design of stone treatment. The design comprises Gothic tracery and columns, the space between which is

by a border treatment of rich colors separating them from the stone. In this way a treatment of the entire color scheme is obtained, which binds together the mosaics, the *faïence* work and the stone into an harmonious whole.

The Pottery has just completed a wall drinking fountain—its own original design; and this again forcibly illustrates the marked difference between the work of the architect and that of the clay working artist. The former employs mould-



MANTELS OF ROOKWOOD WARE.



DETAILS, IN ROOKWOOD WARE.

ings and stereotyped decorations, the latter disregards all traditional forms and draws his inspiration directly from nature, with the result that his design has an expression of freedom and natural charm, entirely lacking in set architectural schemes. In this case the design is a picture representing a spring coming from a fissure in the rock. The entire piece is about three and one-half feet wide and five and one-half feet high, and a beautiful example of the highest art in ceramics.

The examples above cited, while they represent the results of the most careful thought and production, both from a technical as well as an artistic standpoint, and should rank as true works of art, must yet be regarded as comparative beginnings of a branch of ceramics, which is destined to play an important role in the great field of architectural decoration. Much experimenting has yet to be done, and this too, despite the fact that notably high results have already been achieved. It is with a view of conducting such operations on a proper basis that the Rookwood Pottery management undertook, and have just completed a large addition to their plant for the exclusive purpose of manufacturing the new ware.

The pottery building is of a picturesque, low, rambling, tile-roofed, half-timber design, stretching along the very brow of Mt. Adams, one of the cluster of hills surrounding Cincinnati, that is to say the city proper. It can be seen from many points in the valley, and

from a distance looks for all the world like some ancient acropolis. The view in the grounds in front of the building reminds one of some old English wayside inn of olden times. The masonry underpinning is of very rough stone laid up with unpointed joints, thereby heightening the rustic effects. The timber work is slightly stained, and the cement filling is decorated by a bold fan-shaped pattern, modeled in place while the mortar was still fresh. The building was erected in sections at different times, and in this way developed a delightfully picturesque group.

The wing devoted to the manufacture of the architectural *faïence* contains primarily a large central portion, rising above the rest, and constituting the kiln-room, having an ultimate capacity of six large kilns of various shapes and sizes. This room is surrounded by additional rooms for various purposes. When the clay is first received it is dumped into large bins in the basement. From there it is taken as needed and put through the grinders, where it is finely ground and taken to the clay room, which occupies the entire space along one side of the kiln-room. Here it is worked into a plastic state and moulded or modeled ready for the first firing. It is then placed in a drying chamber, from which it is passed into the kilns. After this first firing the resulting biscuit is stored in a room especially for the purpose, where it remains awaiting its turn to be glazed. The glazing is done in another room, which is placed on

the third side of the kiln-room opposite the clay room. This part of the work requires great skill, as in fact does all the work at the various stages. After the ware is glazed it is again placed in a drying chamber, and from there taken again to the kiln-room for the final firing.

A large studio is arranged on the second floor, and from it a balcony overlooks a room two stories clear height. Here the finished product is laid out on the floor, or erected against the wall, bringing all parts of the design together as a whole as nearly as possible, so that some idea of the finished effect may be had, and the design studied as an entirety. In this way the artist can discover mistakes, and if any such

should develop, the work is at once done over again, and this, when required, is unflinchingly undertaken with the one determination to turn out nothing that cannot pass the test of a work of art.

As stated before there is nothing of the factory spirit present. There is only the atmosphere of the artist's studio; no noise, no bustle; quiet and gentleness of manners everywhere. Each of the numerous artists has his own little studio, where he can work out his ideas to his heart's content. The utmost freedom of spirit prevails, and it is the spirit of Bohemia. A most delightful and ideal spot and a Mecca for all art lovers.

A. O. Elzner.



DETAIL IN ROOKWOOD WARE.

A Modern Instance of Colonial Architecture.

The House of Mr. B. W. Arnold at Albany, N. Y.

The comment of the ordinary educated man upon the residence of Mr. B. W. Arnold, at Albany, New York, illustrated herewith, would probably be: "What a handsome 'Colonial' House!" The exclamation would be fully justified. The house, of which Messrs. McKim, Mead & White are the architects, is an extraordinarily finished piece of what is known as "colonial" design. It reproduces admirably the best qualities of one phase of colonial domestic architecture. It is instinct with that spirit of moderation, refinement and good form, which was characteristic of the so-called "colonial" house at its best. Yet this comment, just as it is within limits, would not by any means satisfy a man who possessed a special knowledge of "colonial" architecture. The house embodies the spirit of the so-called colonial house at its best; but there are so many variations from the actual details of the "colonial" type that one is tempted to analyze the source and significance of these variations. What was their object? What is their propriety? What lesson do they teach as to the proper contemporary use of the "colonial" forms?

Of course, the word "colonial" applied to such a house is a misnomer. The American "colonial" was merely an attenuation under very lean economic conditions of the English "Georgian," and the modern "colonial" house at its best always tends to revert in certain respects to the English prototype. The house of Mr. Arnold is distinctly "Georgian," rather than "colonial," yet this further specification by no means covers the peculiarities of its design. It has certain characteristics which are as little "Georgian" as they are "colonial." The ordinary example of the "Georgian" dwelling was, no doubt, in dimension and scale very much the same thing

as the Arnold residence. It was built generally for a merchant on a comparatively small plot of ground, bounded by a street. It was the first recognition in English domestic architecture of the rising importance of the business man, as contrasted with the gentry; and these houses had all the quality of being built for people who aspired to social respectability without daring to claim the largest social prominence. The well-to-do English Bourgeois of the 18th century wanted his house to express his intermediate social position. He wanted to be considered a person of good taste and some social distinction; but he wanted it to be clearly understood that he knew the difference between himself and his betters. His house was pervaded by a very modest sense of propriety, which would have been as much outraged by any breadth or self-confidence of manner on the one hand as it would on the other by any obvious vulgarity. Yet, while this was the commoner type of Georgian house, it was by no means the only type. Early in the 18th century certain Renaissance houses, such as the addition to Hampton Court, were built for members of the aristocracy, which escaped the limitations of the sort of house described above; and many American houses which are intended to have the advantages without the limitations of "Georgian" design move in the direction of this early English Renaissance.

The variations from the "Georgian" type contained in the Arnold house, while they also are evidently intended to escape some of the limitations of English "Georgian," look in still another direction. We do not know, for instance, of any "Georgian" house which bulges symmetrically on both sides of the main entrance. This device



THE HOUSE OF MR. B. W. ARNOLD.

Albany, N. Y.

McKim, Mead & White, Architects.

Photo by August Patzig.



ENTRANCE TO THE HOUSE OF MR. B. W. ARNOLD.

Albany, N. Y.

McKim, Mead & White, Architects
Photo by August Patzig.



THE HALL IN THE HOUSE OF MR. B. W. ARNOLD.

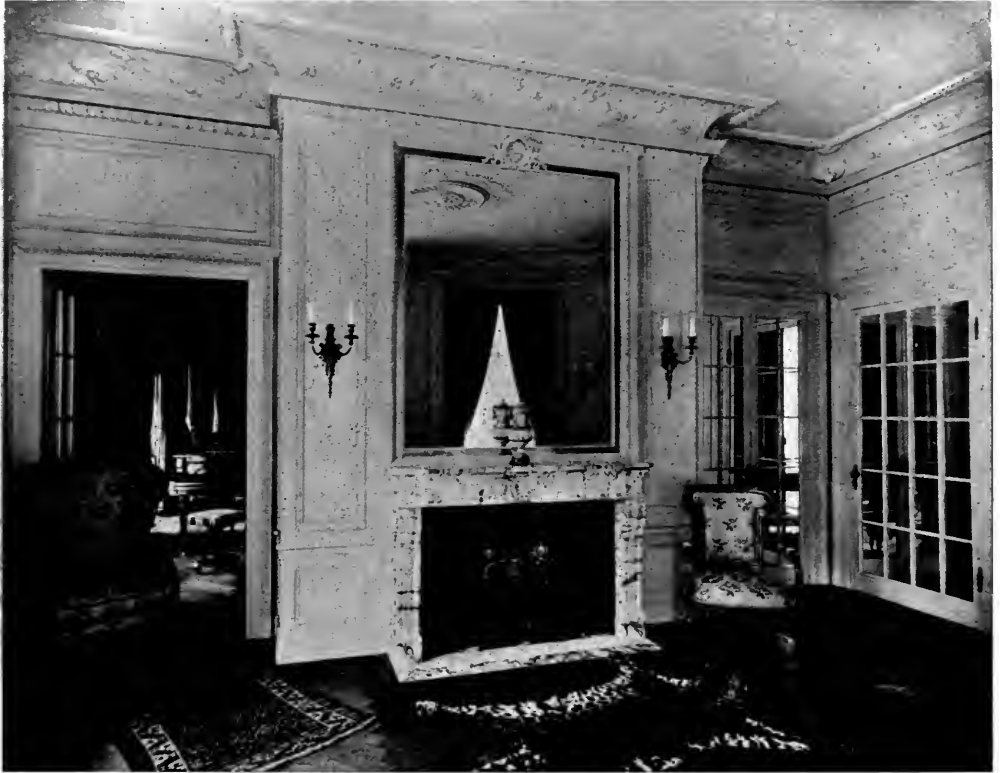
Photo by August Patzig.

McKim, Mead & White, Architects.

Albany, N. Y.

for obtaining more interesting lines in the rooms of the interior is, of course, familiar enough. The most conspicuous examples of it, dating from early in the 19th century, are situated on Beacon Street, in Boston, and others may still be seen in the Greenwich district of New York City. But, wherever found, it is a departure from the "Georgian" liking for straight lines and flat methods

an overhang would not count effectively on a house meant to be seen from a street on which it immediately abutted. Thus, the variations which the architects have introduced into the conventional type have all been made with a purpose. They are the result either of a wish to secure some variety of effect in the interior, or of the peculiar situation of the house. It is just in this



RECEPTION ROOM OF THE HOUSE OF MR. B. W. ARNOLD.

Albany, N. Y.

McKim, Mead & White, Architects.

Photo by August Patzig.

of treatment, and it is a variation which looks better on a house which is situated very near the street line. The fact that the Arnold house is situated near the street line also has another consequence. "Georgian" houses, as a rule, had sloping roofs, which were an important element in the design, whereas the Arnold house is crowned with a cornice and a parapet. This is as it should be, because a sloping roof with

way which historic types of design should be used. It is this sort of adaptation which endows them with new meaning and vitality.

There are few houses in this country embodying the Georgian tradition, in which its spirit and details appear to better advantage. The peculiar characteristic of that style is, as we have said, its discretion—its scrupulous avoidance of any suggestion of excess. The



DETAIL OF THE LIVING-ROOM—HOUSE OF MR. B. W. ARNOLD.

Albany, N. Y.

McKim, Mead & White, Architects.

Photo by August Patzig.

danger which accompanies these qualities is the danger of being prim and stiff and flat—the danger of losing any positive virtue in the effort to escape any obvious excess. The present example is as discreet as a Georgian house must be; but its discretion has not ceased to be a virtue. Every detail has been carefully studied so as to avoid over-simplification, and so as to make

the lower line of the top tier of windows, but this modest projection merely breaks the surface of the wall and helps to tie the third row of windows together, without raising lines and shadows which are effective as against the stronger vertical projections. The windows also are studied with the utmost care. Those of the ground floor are not only larger than those above, but they are made to



SITTING-ROOM OF THE HOUSE OF MR. B. W. ARNOLD.

Albany, N. Y.

Photo by August Patzig.

McKim, Mead & White, Architects.

each member perform an appropriate service in contributing to the total effect. The dimensions of the two façades are such that it is the vertical rather than the horizontal lines which need emphasis. This emphasis is obtained on the more important frontage by the swelling of the wall on each side of the entrance, and on the other frontage by two strong pilaster strips running up to the cornice. A much weaker string-course runs around the three façades on

appear still more important by their marble framing. The windows on the second tier are again slightly larger than those on the third, and are capped by a little bit more elaborate stonework. Above, the posts of the balustrade have been carefully situated to complete the motives of the design below, and their profile carefully fashioned into lines, which look well from the street. The same attention to detail may be noticed in the panelling of the chimneys and in



LIVING-ROOM OF THE HOUSE OF MR. B. W. ARNOLD.

Albany, N. Y.

Photo by August Patzig.

McKim, Mead & White, Architects.



DINING-ROOM OF THE HOUSE OF MR. B. W. ARNOLD.

Albany, N. Y.

Photo by August Patzig.

McKim, Mead & White, Architects.

their marble caps. No subordinate element in the design has been slurred, and the whole effect of the street frontages, with their contrasts between the marble base and trimmings and the warm red brick, and their combination of fundamental simplicity with great variety of architectural expedient, is as positive as it is discreet.

The entrance porch deserves special examination, because it exhibits on a smaller scale the peculiar qualities of the whole house. Here as elsewhere the architect has preserved what is best about "Colonial" design, while at the same time turning to the utmost account the freer hand, which larger architectural financial resources has enabled him to use. This is a marble and not a wooden porch, and it is designed by a man who is using the classic forms and details with an experienced and instructed knowledge of their values. The stiffness, quaintness and the bareness of the "Colonial" porch disappears and an Ionic order takes its place, which is rich in detail but quiet in effect. And it has something more than good style. Taken together with the delicate and graceful ironwork of the balconies, the door and the railing, and with the judicious use of dark spots of evergreen, the effect is charming as well as distinguished.

When we pass to the interior of Mr. Arnold's house, we find that the architect has departed much more completely from the "Colonial" or Georgian tradition than he has on the outside; and it is natural that he should do so, because it is in connection with the inside of the house that the opportunity for more flexible and freer treatment, and the necessity of it, becomes greater. Even on the interior indeed the architect keeps to the same sort of effect as that which was produced by the rooms of a "Colonial" house. There has been no attempt to obtain a rich and "stunning" impression by the use of magnificent materials, derived from French or Italian sources. The materials of all kinds, whether fabrics, wall coverings, or wood and stone finish, are modern, and these modern materials are treated with the consistent intention of keeping

the rooms simple, quiet and comfortable. Simple and comfortable they undoubtedly are; but, owing, doubtless, to the fact that an architect cannot control the interior as completely as he can the exterior of the house, they have not the same distinction as that exhibited in the other parts of the design. It is, of course, only a question of degree. The interior, like the exterior, is carefully designed and appropriate; it is freely and vigorously as well as discreetly treated; there is no obtrusion of domestic millinery; but the general impression is that of a pleasant and refined comfort rather than that of the charm which may come either from very personal rooms or from those which are stylish in a high architectural way.

The hall, as the room which one sees first in passing from the outside to the interior, is naturally the one which preserves a peculiarly "Colonial" character. It is more spacious than the majority of "Colonial" halls, and the openings instead of being closed by mahogany doors, are wider, and are hung with "portières." In the cases of the dining-room and the living-room at the front of the house, a vista between these rooms and across the hall has been preserved. Nevertheless, the plan of the hall running through the house, the white woodwork, the silver-grey wall covering, the stairway with its mahogany railing, and the extreme reticence of the detail—in all these respects the hall is nothing if not "Colonial." In the other rooms, however, the architect has broken away from the limitations of this style. The living-room is a spacious and handsome apartment, with a simple Jacobean ceiling, with a bookcase occupying the free wall space on two sides, with a brown grass-cloth on the walls above the case, and with a somewhat miscellaneous but on the whole a very comfortable equipment of furniture. The dining-room is panelled in mahogany, each individual compartment of the panelling being large in scale and adapted to the ample dimensions of the room. It differs from any "Colonial" precedent in the exclusive use of mahogany on the



DEN IN THE HOUSE OF MR. B. W. ARNOLD.

Albany, N. Y.

McKim, Mead & White, Architects.

Photo by August Patzig.



BILLIARD-ROOM IN THE HOUSE OF MR. B. W. ARNOLD.

Albany, N. Y.

McKim, Mead & White, Architects.

Photo by August Patzig.

walls; but the furniture and the detail of the room all belong to the period. It is interesting to note that the sideboard in particular is apparently a modern reproduction of the forms current at the time when they began in Boston to place swelling fronts on "Colonial" houses. The reception room on the other hand, with its marble mantelpiece, its white panelling, its glass doors, and its French furniture, is as much French as anything else, but not sufficiently French to clash with the atmosphere of the rest of the house. The "den," also, is not a room which can be very definitely labelled, but it is none the less a very interesting and complete bit of interior design—business-like and useful, yet at the same time very attractive.

In fine, the owner of the house is to be congratulated on the possession of a residence which, although carefully de-

signed throughout, has been designed with a view to comfort and propriety as well as to architectural effectiveness. The architects on their side have afforded one more example of the peculiar skill which accounts for the great popularity of their firm. They can take a traditional style, with all its associations and atmosphere, and adapt it to a modern purpose with admirable architectural tact. They can preserve the atmosphere of the style, and renew the effect of its forms, while at the same time making those variations of disposition and detail which the particular case demands. The house figured herewith is only one of many, in which they have adapted the Georgian type to a contemporary American owner and site; but it would be hard to find a better illustration of the way to do it right.

A. C. David.



ROOKWOOD GARDEN POTTERY.



THE NATIONAL PARK BANK.
(Broadway Façade.)

New York City.

Donn Barber, Architect.

The New National Park Bank.

The development of the skyscraper has had a curious and unforeseen result among many such. It has brought it about that a comparatively low building may on that very account be a comparatively "swell" building. Altitude, throughout the history of architecture has been a mark of pretentiousness. The loftiest buildings have been those reared for the loftiest uses. "The cloud-capt towers," being without practical utility, have been reserved for the proudest pretensions. They have denoted either the public uses of church or state or the utmost extravagance of private builders. Already we have changed all that. No considerate architect will henceforth recommend a lofty spire for a city church, where it is likely to be brought into the utilitarian competition with the secular and utilitarian monuments and grievously to suffer in the same. Certainly no New York architect is likely to do so, having the crucial example before his eyes of Trinity Church, and remembering—it was less than a generation ago—when its final was the tallest erection and the most conspicuous landmark on Manhattan Island, and then beholding its present state, hemmed in, overtopped, concealed and mocked by the Titanic buildings of mere business that have come to jostle one another around it—attracted to the insulting performance by the pious reservation of Trinity churchyard, which offers them abundant and gratuitous light and air for use in their business. It takes a hardened cynic or an invincible optimist to rejoice in the spectacle. Even a Gradgrind must rejoice with trembling. There used in old days to be many Gradgrinds who deplored and denounced the "waste" of the reservation of the churchyard, computing what revenue there would be from the "wasted" space if it were devoted to secular uses. It might, they complained, have been sold for millions of pence and given to the rich. Upon

these Gradgrinds the whirligig of time has brought in his revenges. For the reservation has enabled riparian owners to make far more money out of their holdings than if the churchyard had been abandoned to secular uses when they would have had it so. What a fluttering among the dove-cotes of the Gradgrinds, supposing Gradgrinds to maintain dove-cotes, there would be to-day, if the corporation of Trinity should declare that it had been convinced at last by their arguments that it was not justified in withholding its land longer from profitable secular uses, and that it had accordingly determined to remove Trinity and St. Paul's indefinitely uptown, following the movement of population, and occupying the sites of churches and churchyards with twenty-story skyscrapers for the supply of its temporalities. How much would the threat of such an occupation bring to prevent it, from the owners of the Park Row and the St. Paul's, of the Empire and the Trinity and the Union Trust and the other skyscrapers, in the way of rental for the privileges of air and light which those owners now enjoy rent free. "Cantat vacuus" at the predicament of Gradgrind assessing the value to himself of a continuance of rejecting his advice!

But these reflections are taking us away from our proposition, that, as things are going now, that corporation or institution which can afford to build a structure exclusively for its own use is thereby "sweller" than if it mixes the satisfaction of its own requirements with a "real estate speculation" and becomes one of many tenants of its own erection. The very absence of pretension becomes pretentious, as in the case of that old lady who declined a dazzling price for one of the most eligible sites on the cliffs at Newport, upon the ground that if she should sell it, she would have no place to pasture her cow. The old banking buildings in Wall

street, which occupied a lot each with a single banking-room, gave a sense of greater importance than those which built five-story buildings and lowered themselves to let what they did not require of them. Twenty years ago, there were at least two of these banks left in Wall street, granite fronts with an order, little classic temples "distyle in antis" or so, which would be merely ridiculous and obsolete, if they were standing there still, among the skyscrapers, but which vindicated the importance of their occupancy all the more, because the single story which the order marked was not taller than two of the five of their neighbors. Doubtless the most "swagger" thing that has been done in Wall street in the architectural way for many years, if not ever, has been the acquirement by the City Bank, for its own occupancy, of the masterpiece of old Isaiah Rogers, the building which sixty-five years ago, being by far the costliest building on Manhattan Island, it was thought extravagantly ambitious for the whole guild of merchants to erect for their Exchange. But, of course, the swagger would almost disappear, if the bank which has made the latest purchase of it should erect over its colonnade and attic a skyscraping superstructure for the purpose of dividing the cost of maintenance with its co-tenants. The erection by the New York Herald of a two-story building for its own exclusive accommodation on a very costly plot was an assertion that the occupant was not merely a business concern, but an institution. A firm of private bankers has magnified itself into an institution by a like performance upon the even more costly site in the heart of the financial quarter.

And even more noteworthy and significant than either of these structures is the new building of the National Park Bank. Its old building has lasted just about the full generation which the late James Renwick, with much plausibility, fixed as the lifetime of a building in New York. It had been designed for the bank by the most fashionable architect of the time, the late Griffith Thomas, although it was incidentally an office building, and it is curious now to con-

sider that this five-story edifice, with its white marble front and its mansard was, at the time of its erection, the architectural lion of the day. In the interval, the business of the bank had so outgrown its quarters that it was impossible to accommodate it in them, even by using all the available space of the whole building, and the question arose, as in all such cases it must arise, whether to house the institution by itself, thereby denoting that it was an institution, or to house it in a skyscraper, of which the owner was only one of many occupants, thereby denoting that it was an institution complicated with a real estate speculation. Assuredly, all lovers of architecture have reason to congratulate the bank upon its choice.

The preliminary question being settled, that the bank could afford to own and maintain its own building without assistance, the first problem of the architect was to make sure that a building, which essentially was to consist of a single story and a single room, to which the rest should be strictly subordinate appendages, should yet not be submerged by the skyscraper which already flanked it on one side or between that and the skyscraper which under a hostile or an alien ownership was fairly sure to come to flank it on the other. With the condition that the building was to consist of a single room, this requirement meant that the Broadway front should consist of a single feature. The "order" of the old Wall street banks of which we have been speaking would have fulfilled this requirement, and might have been made to fulfil it with dignity. It was, in fact, the most obvious solution. But an order, by reason of the space it occupies and the projection it involves, is as effective a means as could be devised for depriving of light the front which it signalizes. That, indeed, was the chief solecism of the old Greek revival, so far as it was attempted to apply it to commercial, or for that matter to domestic uses; and the most successful, architecturally, of the works of that revival were those, in which the light for the interior was entirely derived from above and the win-



THE NATIONAL PARK BANK.
(Fulton Street Façade.)

New York City.

Donn Barber, Architect.

dows either omitted altogether, as in the temples which were the prototypes, or so subordinated as to leave the order in effect to constitute the architecture. The compromises between classicality and utility, of which the Treasury at Washington is a conspicuous example, were apt to be failures on both sides. And besides, an architect may well take shame to himself for resorting to the most obvious and the tritest of all possible expedients for giving dignity to a front of moderate dimensions and enabling it to hold its own in the presence of taller neighbors with lesser units of design. The fact that everybody is doing it "ad nauseam" should not prevent him from doing it also if it really be the best thing to do. But it may very well put him on inquiry whether there be not a more excellent way.

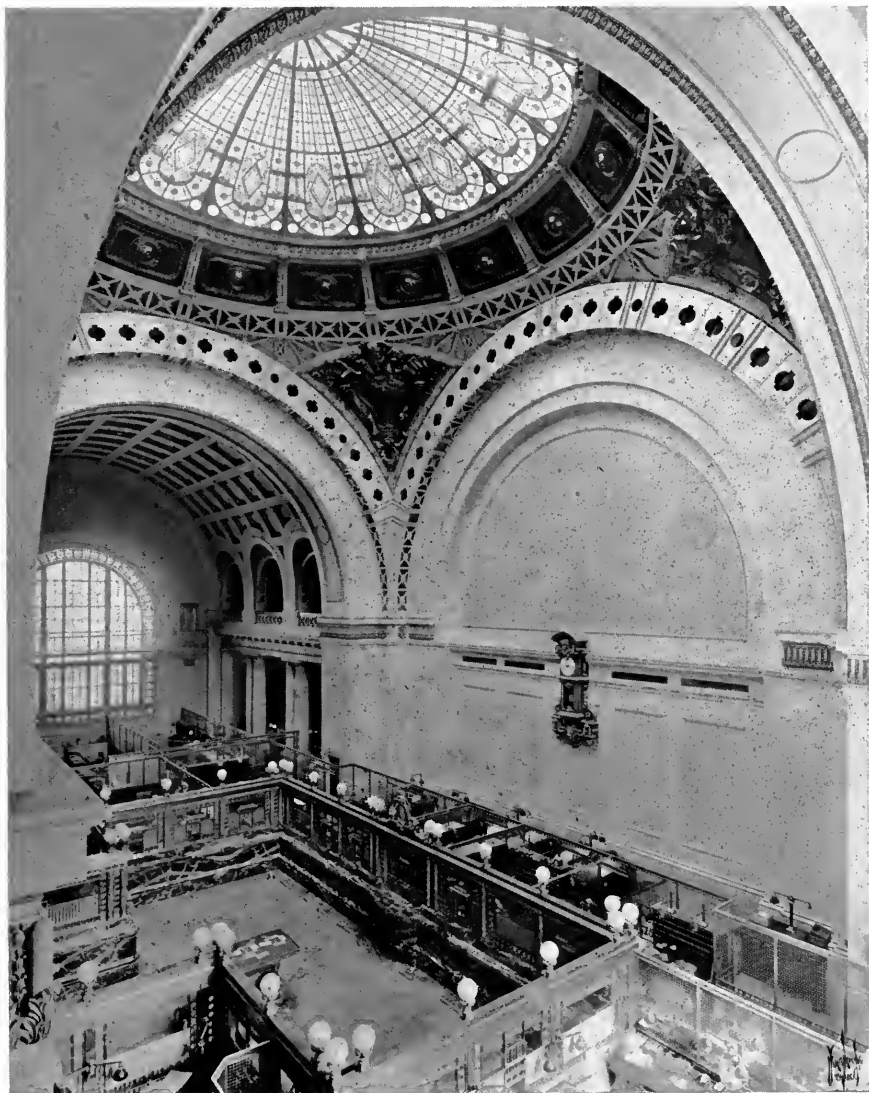
It will hardly be disputed that the architect of the Park Bank has found such a way. There may be, nay, we see that there are those who maintain that we cannot have a surfeit of "orders" in our street architecture. But even such would not deny that the well-abutted arch which takes the place of the order as the feature that architecturally constitutes this front equally serves its purpose as feature, equally by its scale asserts itself against its towering neighbors, and equally betokens the interior arrangement; while they will scarcely assert that an order which should serve this purpose as well, could be employed in this front with so little interception from the interior of the illumination which this astylar front affords. The scale of the arch makes it quite as imposing as any order that could take its place. The arch itself, it will be observed, comprises three full stories of its neighbor on the right, and nearly two of the doubled stories of its neighbor on the left. The composition seems to us admirable. Large as the arch is, the abutments reserved for it are superabundant, and both the slight batter of the ashlar piers and the slits of opening enhance their apparent solidity and sufficiency. The low basement is ample as a base, and in spite of

its lowness affords, with the treatment adopted to that end, space for a liberal and even dignified entrance. The sole modelling of the arch itself is that concave quadrant which is becoming so frequent, and which emphasizes the complaint that the Beaux Arts, of which this building so visibly bears the stamp, does not teach or understand the use of moulding.

Certainly there are those who find this at once the least effective and the least expressive mode of modelling an arch. Doubtless it is "in style," and doubtless it cuts off a minimum of light from the interior. But a square arris or at least a straight chamfer would equally attain this practical end without equally enfeebling the arch. On the other hand, the little colonnaded attic is excellent in itself and effective in giving scale to the great arch, while the two superposed stories, vigorously and simply treated as they are, are so evidently mere dependencies as not to interfere with the predominance of the single feature. With the mansarded story, they bring the altitude of the single-storied front up to that of the nine stories alongside.

The subordinate fronts which project beyond the flanking buildings, on Ann and Fulton Streets, have the same general treatment with the Broadway front, excepting that they omit the superposed stories, and thus, while unmistakably denoting themselves as belonging to the front from which they are separated, suggest themselves as possible bases for a future superstructure. One of these spaces at least accrued during the progress of the work, to the great benefit of the interior which thus assumes the form of a nave and transepts without a choir. The wing of the Fulton Street front, which makes that front unsymmetrical, has at present the effect of a rather ungainly superfluity. Evidently it would gain both comeliness and meaning if the corner lot should hereafter fall in, in which case, considered as the basement of one of several bays of a towering building, it might become very effective.

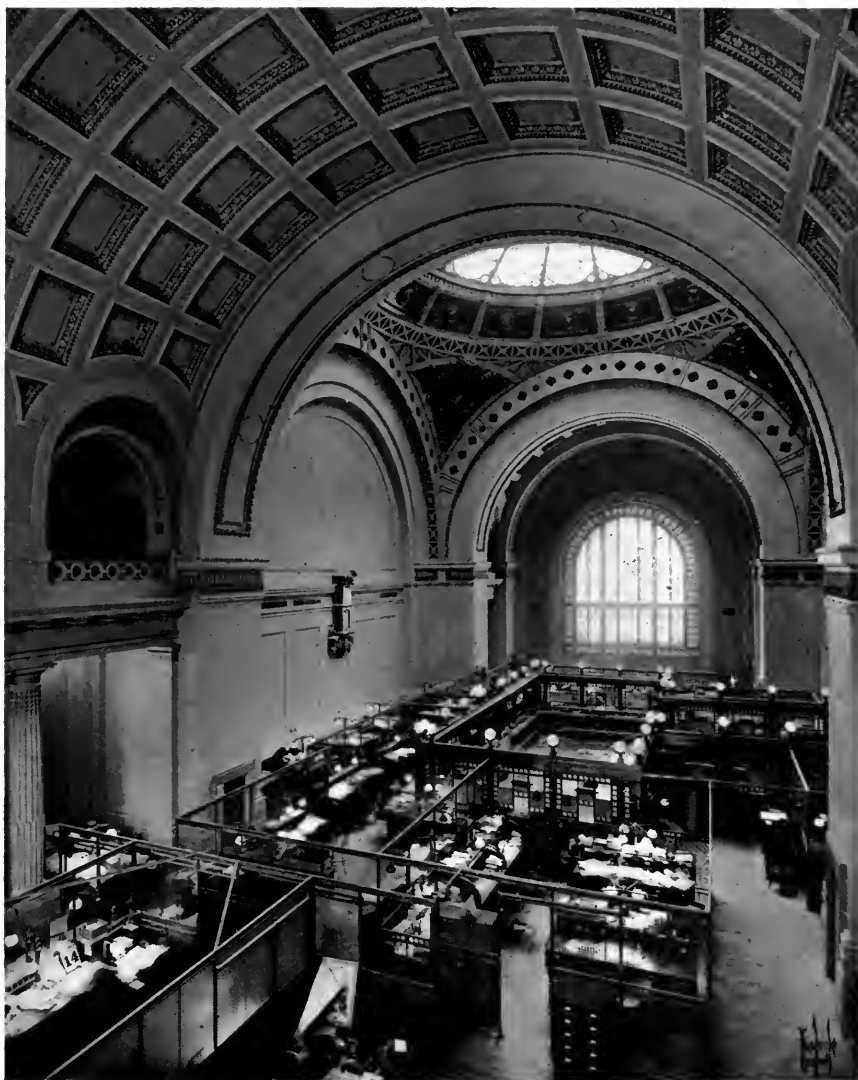
But it is the interior which is per-



THE BANKING ROOM OF THE NATIONAL PARK BANK.

New York City.

Donn Barber, Architect.



THE BANKING ROOM OF THE NATIONAL PARK BANK.
New York City.

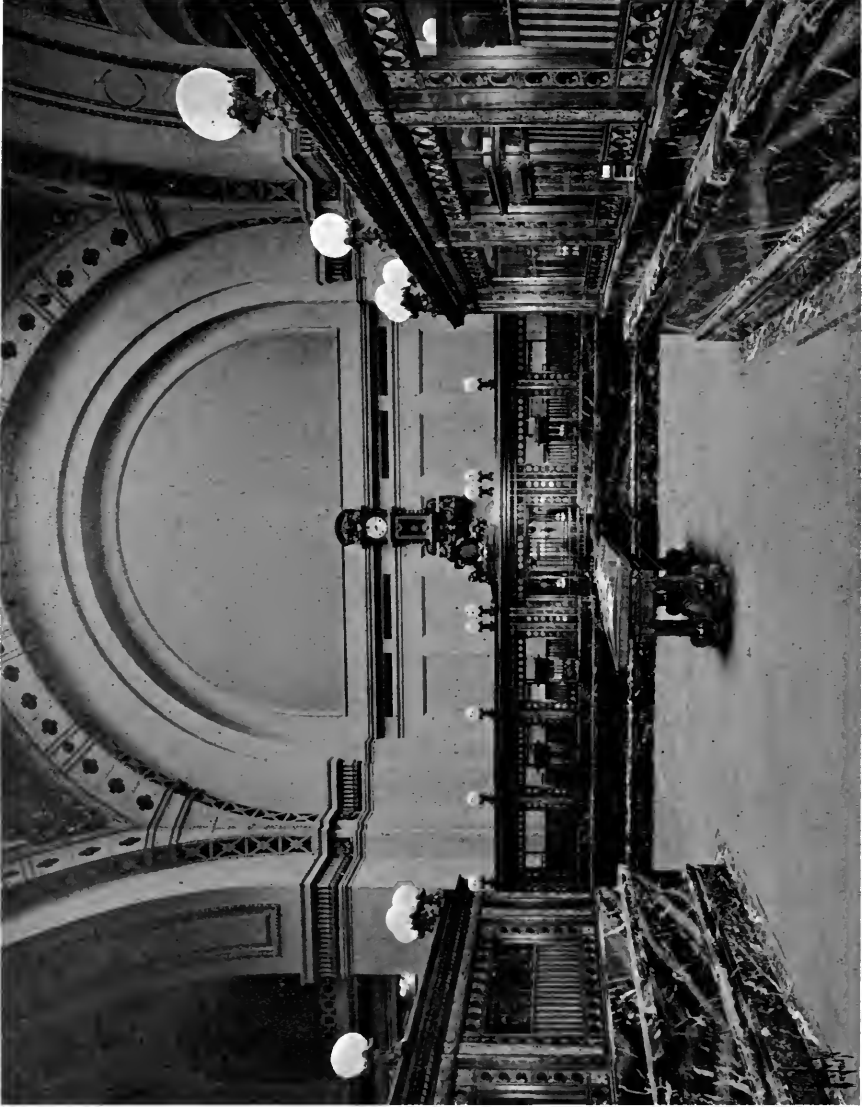
Donn Barber, Architect.



DETAIL OF THE DOME.
(The National Park Bank.)

Donn Barber, Architect.

New York City.



THE BANKING ROOM OF THE NATIONAL PARK BANK.

Donn Barber, Architect.

New York City.



METAL DETAIL IN THE BANKING ROOM.

(The National Park Bank.)

New York City.

Donn Barber, Architect.

haps best calculated both to attract attention from those who have the opportunity of seeing it, and to repay that attention. The single banking-room of which it consists, is worth all the trouble and expense that have been incurred to obtain it. The domed skylight which marks the "crossing," and the coffered tunnel vaults that diverge from it denote an arrangement and an effect which suggest a Renaissance church rather than a modern bank. Equally suggestive in the same direction are the sumptuous fittings of bronze and marble which are integral parts of the strictly architectural effect. Upon the marble the architect is particularly to be congratulated, not only on account of its color, but because its striation is so broad and bold as distinctly to promote the scale of his interior. In spite of the reminiscence it affords, however, this work is of an unmistakable modernity. The ironwork of the arches, latticed on the soffit and of a perforated web on the face, is one of too few examples of what an artist may do with modern engineering construction, and harks no further back than the Tour Eiffel and the Galerie des Machines. The treatment of the central vault is equally admirable and effective in the constructive features of the arches and the rings of the dome, and in the decoration of the pendentives. So much of its effectiveness comes from the evidence it bears of being "the real thing" that it is partly to be expected as well

as wholly to be hoped that it may have its influence upon other designers who have contented themselves, in attaining similar forms, with doing the sham thing. It is much to be wished that the architect had seen his way to the same reality in the supports as in the thing supported. The plastered piers are not congruous with the avowed metalwork they carry. One would not ask for the sumptuous marble of the counters. Plain ashlar, or failing that, even an honest brickwork would have carried out the design with more life and spirit than can be attained by the employment of a mere envelope.

But it is most unjust to quarrel because we cannot have everything when we have so much more than we could reasonably have expected. We have even effective mural decoration. Painting was indeed very strongly "indicated" by the expanses of lunette that accrued from the domical treatment of the ceiling. The indication has been followed in one by Mr. Herter's "Agriculture" and is to be followed in the others by corresponding representations of "Commerce" and "Industry." The banking room of the Park Bank is a noble apartment, much in advance of anything for the same purpose we have hitherto had to show, and lovers of art have to thank the directors of the institution, as well as their architect, for a work so important, so effective, and in many respects so exemplary.

Montgomery Schuyler.

Socialism and the Architect.

The industrial machinery of the twentieth century demands of each individual the performance of the task for which he is best equipped. The tendency of the age is towards specialized and co-operative effort. Each department has its definite area of activity, and co-operation itself is obtained through specialists in executive management. Most of the forces of industry are instinctively adjusting themselves to the new conditions. They have selected their own positions in the movement. A few have refused to recognize the tendency: the procession has swept by, and being unable to carry them along has ruthlessly bent them in the direction of progress—where they either remain stationary or are forced into positions for which their workers are ill-equipped and their original destiny perverted.

The complex building trades have responded in the main to this tendency—all but the architect. He is reactionary. Architecture in past ages was an art. Its practitioners were recognized as artists. The architect still proclaims himself an artist, but in a large measure he has become a business man; and the practice of architecture has become a business. A list of the most successful practitioners in the United States would contain the names of an undue proportion of men, who owe their success to their abilities as organizers, promoters, and business men—rather than as designers, as architects.

The architect may deplore the fact; but he is himself responsible. He has not readjusted his work in order to cope successfully with the conditions of the times. He has not specialized in the one field in which his training makes him supreme. He has opposed this specialization. He has been stubborn. Other forces have bent him—and in his own speciality he stands still. His progress has been in directions where others can give better results.

His energies have been so much given to maintaining his business footing that he has neglected his art. Under these conditions the practice of architecture must remain a business, artistically uncreative and stagnant.

The industrial world looks to the architect as the man best fitted technically to assemble the complex materials of a modern structure into a harmonious whole. His success or failure is gauged by the results obtained in his finished product. To be thoroughly successful this product must show the highest efficiency in all its parts and at the same time be æsthetically satisfying. When the architect has arrived at this result he has accomplished his mission.

Under the pressure and specialization of modern practice he is not achieving the results expected of him. His methods are not harmonious. He is not maintaining the proper balance between the component parts of his work. His energies are diverted from their proper channels. He is devoting an undue proportion of his talents to business, engineering and mechanics — and the æsthetic side of his work for which he is best fitted is being neglected.

The architect foolishly believes that this programme is necessary in order to maintain his position as an artist. In reality it is having the directly contrary effect. The only way in which the architect can regain his position in the arts is by recognizing the modern tendency of industry, and by being content to perform only that portion of the work in connection with building for which he is adequately equipped. The best results will be obtained if the architect recognizes this evolution and readjusts his work and his duties accordingly; but with or without his consent the change will come, and architecture will again become an art in spite of him.

It is not our purpose to argue for or against this industrial evolution; but no unprejudiced observer can deny its ten-

dency. Rightly or wrongly all signs point one way. This way is socialistic; but the men who are mainly responsible for the tendency are not "doctrinaires." They are the "Captains of Industry." They would be the last to admit that they are the forerunners of the co-operative commonwealth, and yet to the socialist they are the living proof of his doctrine.

The formation of every trust, every trade and labor union, every society of professional men and every combination of employers tells but one story. These combinations are in turn subdividing, each subdivision working in its own specialty and having its own organization, but maintaining its affiliation with a central body.

The age of individualism is fast becoming a memory. Men are combining not for individual but for co-operative effort. The conduct of the business of architecture follows this socialistic tendency as to organization, but not as to specialization. The work is specialized but within itself. It is co-operative; but the technical and strictly architectural specialty and the executive specialty are *both* centered in the architect. The executive specialty requires constant and prompt attention. Its demands must be instantly met. Its powers cannot be delegated to others. The architectural specialty needs quiet and tranquility, and under the pressure of modern business it becomes physically impossible for one man to attend to both. The result is obvious. The tranquil state is not reached. The architect devotes his energies to his imperative duties.

The busy architect of to-day does not draw, he does not design; the purely commercial interests of his work occupy all of his time. The client usually demands careful and personal supervision of his finances as paramount to any other consideration, and at most the busy man finds it barely possible to make the roughest kind of sketches which he turns over to his draughtsman for further elucidation. When the design is finished he signs his name as architect—but the individual touch of the artist is usually not there, and, if

there, it is only the voice of the architect, but the hand of the draughtsman.

The modern architect's office is one vast machine, in which the work is subdivided into many departments. Architectural firms have grown out of this condition and their formation is generally consequent upon the necessity of making combinations of specialists to the end that the firm may be able to handle the complex problem of modern construction. One man is the designer, the second may be the engineer and the third the business man. Even then they cannot cover the whole field, for their draughtsmen, too, have become specialists. In some cases a draughtsman becomes a managing clerk; others are designers; some simply trace, others attend to construction. A well-organized office has a specification writer, and specialists in heating and electricity, as well as outside superintendents and bookkeepers. In fact the business of a large firm with an extensive practice is as complicated in its machinery as a department store, but with this difference, that the department store has a manager whose sole business it is to manage. The manager has a specialist under him in each department and he makes no pretense to special knowledge except in the executive department. If the architect is satisfied that architecture should remain a business, this method is logical. If he persists in proclaiming himself an artist he should give over the management of this complex machinery to others trained for the purpose.

Under the conditions which obtained in the past the architect could fairly assume that he was competent to grapple with the business problems incident to his work and still maintain the proper relation between his business and his art. His training in the schools still teaches him that he should be considered first and foremost as an artist—and in these schools the proper balance is maintained between the strictly architectural and the business side of his profession. The men responsible for the curriculum realize that an attempt to teach modern business methods would carry it far beyond the domain of aca-

demic training. They assume for the purpose of this training that old conditions still obtain. Under these conditions it was possible for the architect to be the master-builder and to assume that he is an expert in all the building crafts.

To-day the architect cannot honestly assume this position. Construction has become too complicated. His knowledge must be superficial, and in his effort to assume a preponderance of exact information in all of the works over which he presides, he finds that he is outstripped by the experts working under him. If he continues to attempt to hold on to the powers and authority that he has exercised in the past, there is no hope for the architecture of the future.

He cannot produce his work as a commercial commodity and at the same time be an artist. The dealers in this commercial commodity will always need the artist. They realize that beauty has a commercial value and in no other age has the average man been so willing to expend his wealth for the purely beautiful. There have been popes, kings and emperors who have been patrons of the arts in a larger measure than any individual of to-day. But now the people are interested. They may be interested because it pays—but they *are* interested. The architect cannot satisfy that interest, he cannot give the best he has in him while his time is consumed by the multiplicity of details which modern practice demands of him.

The result of this tenacious holding on to an obsolete programme is visible in much modern work, and particularly in American work, where the strain is greatest. Our nation has made no advance whatever towards the creation of a national style. When we wish to build a beautiful tower we copy a Spanish monument; when we have to erect a modern club house, we enlarge the design of an Italian palace and fit it to the new conditions. Our architects have worked Vignola to death—but they have not solved the modern problem. What encouragement is there to the younger workers when they see the deans of their profession, the men who are ac-

cepted as types of successful practitioners, willing to rest their reputations upon good copies of ancient works.

These old and beautiful examples of the art of the past were the results of the application of an artistic spirit to the needs of the time. They were the outgrowth of a system which left the architect time to give his work creative study. They answered the problem. The architecture of to-day under the pressure of our industrial system has degenerated into copying. It is good architecture only as far as the copying is judicious.

On the business side of his work the architect has been trained to believe that he would have a free hand. He actually finds himself bound by hard and fast limitations. He expected to be employed by an individual—his client is more often a firm or corporation. He was to seek the co-operation of many individuals, who in turn would employ the units which would cause his design to become a concrete thing. He actually finds a few corporate interests, with whom he must deal under definite conditions which in turn deal with other combinations of men through trade organizations and labor unions. Circumstances may make it advisable that he should avoid the larger corporations in seeking to have his client's work performed—but even then he finds his liberty of action hemmed in on all sides by combinations of both employer and employee. He can carry out no work for his client unless he deals with these combinations. Under the simpler constructive methods of the past, the architect dealt with a few trades; he now finds that he must deal with hundreds; and each unit is simply a part of an organization which refuses to do business except under co-operative conditions.

By far the largest number of building operations of importance have as their controlling interests corporations formed for the purposes of building or holding real estate or professional real estate operators who are thoroughly trained in finance. They know to a nicety just what their building properly de-

mands. They have figured out the rentals and running expenses minutely, and they are perfectly familiar with the commercial value of their product and of all of its component parts. They need the architect to solve successfully the commercial problem on the basis of definite data and to inject into the scheme the utmost amount of beauty consistent with its solution. These corporations cater to the private owner as well as the business firm, and palatial dwellings are now procurable by the home-seeker ready made.

In the past a wealthy client would have carefully considered every detail of the plan of his new home—his entire family would have been consulted at every step. To-day he can find dwellings offered for sale ready for occupancy in fashionable neighborhoods, thoroughly suited to his requirements, constructed with due regard for the most fastidious taste and containing every possible mechanical appliance known to modern construction.

The heads of the corporations who control these large operations have absolutely no need of the architect in the financial management incident to their schemes. Once having the technical data complete in the form of drawings and specifications, these men, skilled in finance, are infinitely better equipped to consummate monetary deals than the architect, provided that no changes in construction or design are made without the architect's approval, where he alone is in a position to judge of the limitations of any portion of the work.

The changes in the methods of building have made these corporations an indispensable part of the modern business system.

In order to meet the commercial demand of the age, time is an essential. One year's loss of rentals frequently means financial disaster. Attempts are made, wherever possible, to construct buildings between rental seasons, and whereas under the older methods it was generally sufficient for the client to engage the architect at a time almost coincident with the construction of his building, in many cases the architect is

now called in months before the property upon which the improvement is to be made is even purchased. In fact, the services of the architect are essential at the very inception of the scheme as a business venture. The interested parties must have a definite statement of the possibilities of the land placed before them prior to their decision to proceed.

There are but two ways open in our large centers of population by which a finished building can be produced in a sufficiently economical manner to compete successfully with its rivals. Both of these methods involve using the forces of co-operation to the fullest extent to which they have been carried in practical every-day methods. The economy of one method over the other is purely a question of the importance of time. One is to deal directly with the great building corporations with their complicated machinery well regulated and in running order. The other is to form a temporary corporation for the particular project, which, although saving large sums of money, must necessarily involve slower methods due to lack of experience.

The method having been decided upon, the business problem thus presented to the modern architect can be solved only in one of these two ways, both centering around the corporation and leading in the same direction, but one starting from a more progressive stage than the other. The old method of calling for competitive bids from four or five contractors, who would in turn farm out the work to many sub-contractors, is no longer an economical success.

There is no middle course between these corporation methods, and the sharp competition of modern industry has brought about a tendency to eliminate a portion of the competitive system itself so as to save the profit of the middleman.

The modern structure has also become specialized like all other products of modern industry. In the preparation of the preliminary scheme for a new project, the architect frequently finds a

large amount of special knowledge necessary for which he must consult other parties. If it is an office building, an apartment, or a hotel, he must familiarize himself thoroughly with local rental conditions, information which can be obtained only from a specialist in the neighborhood, in which the building is to be erected. If a private dwelling, he must know the habits of the family for which he builds, and if a factory or business house, complete familiarity with the methods of the particular business or manufacture is absolutely essential to success. The impossibility of grasping all of this knowledge is recognized in the trend of modern practice. Men have become experts in theatres, apartments, interior decorations, breweries, mills and other lines, and our large cities have architects on their lists who rarely go outside of their particular specialty and who frequently act in a consulting capacity to the decreasing number of general practitioners.

The exacting demands made upon the modern architect are the natural consequences of the complications due to methods of construction.

Nowhere is this more apparent than in the Fourteenth Edition of "Kidder's Architects and Builders' Pocket-Book," where, in explanation of the enlarged size of the new volume, the author states that: "At the time the first edition was issued Architectural Engineering had not been used in its present application, and the term 'Structural Engineering,' when used, referred almost exclusively to bridge work."

"To-day, structural and architectural engineers are concerned almost exclusively with building construction, and their work is more closely allied to that of the architect than to that of the civil engineer; hence, the author has had in mind the needs of the structural engineer and draughtsman, as well as those of the architect and builder, and the book should be of nearly equal value to both."

These modern methods of construction need of the architect an amount of exact technical service far in excess of that required of him under former con-

ditions. The corporation must have much more exact preparation than the private client required, as it usually demands that all of the material be prepared, fitted and stored before actual construction is started on the site.

This system has multiplied and concentrated certain services required from the architect many times. Before the first spade of earth is turned he has frequently worked many months in carefully preparing the drawings and specifications in every detail, so that all portions of the work may be started in the various shops at the appointed time.

High taxes and high-priced property demand that each day shall count. Co-operation and specialization have caused the actual output of drawings required from the architect to be increased many fold. Formerly, some four or five sets of scale drawings were prepared and a similar number of general specifications prior to the work being started. All of the details of construction were made as the work proceeded. To-day the architect is expected to reproduce his scale drawings thirty and forty times, and to divide the specifications with the ultimate amount and minutiae, separating them for the various trades, so that some thirty specifications may become necessary, besides the frequent reproduction of all details, prepared far in advance of even the beginning of actual construction. The securing of low tenders to perform the various parts of the work is insured thereby, and the middleman whose habit it was to guess at the cost of some intricate piece of detail finds that he and his guess are not wanted. The manufacturer of the commodity to be supplied is satisfied with nothing but an accurate full-sized drawing.

Wherever these details include the work of several contractors copies must be distributed to the various interested parties as often as the work of each contractor is shown thereon.

The system of dealing with a large number of workers and having the material completely prepared beforehand requires much more accurate and con-

tinuous superintendence than was formerly needed, much more thorough inspection than can be obtained by the occasional visit which the architect is supposed to give. Superintendence as defined in the schedule of the Institute of Architects is totally inadequate. In fact, to secure proper results it must be continuous, and this is so keenly realized that the clerk of the works has become the rule rather than the exception on all large operations.

The architect recognizes the encroachment of his business upon his art; but he has not moved a finger to protect the position which he claims to value. His efforts are purely for business protection.

He recognizes the co-operative tendency in his professional association, but mainly for the purpose of upholding professional fees and regulating practice. In the United States and England the Institute of Architects performs the same function as a trades union. It attempts to level the compensation at least not below the minimum wage, but it is not as altruistic as the trades union, as the schedule provided is for minimum compensation, and its power over its members is not as great. The Institute has set a precedent, but it is not a positive force. In other respects in his professional association the architect refuses to admit that he must change his position and combats all efforts by others to make the change.

The National Convention of the American Institute of Architects, held in Cleveland last year, promulgated the new doctrine that it was unprofessional for an architect to assume to design work without having complete control of its construction. The Institute refused to recognize that under modern methods this supervision should be within limits which would allow the designer to devote the proper proportion of his time to the artistic creation of his design.

Legal enactments in several states requiring the architect to secure a license have recognized the increased technical responsibilities placed upon the modern practitioner, but these acts have been

frequently opposed by the leaders in this most influential of professional associations on the ground that architects were artists, and that art could not have its fullest development under legal restrictions. Paradoxically, this same influence has resisted the attempt of the government to remove some of the technical and business burdens, presumably upon the ground that fees would be reduced accordingly.

The logical position would have been to accept the proposition, but to insist that the fees now paid should not be reduced in view of the much larger service required under modern methods.

While the architect is wondering what is to be done—bemoaning his dethronement from the position which he formerly occupied in the arts—his status is being fixed by the building corporation, at the head of which is an executive specialist eager to obtain the best results from each one of the component parts of the great machinery under his control. These great corporations—these department stores of the building industry, are fixing the architects' status anew—and although the process may seem harsh to the profession, this tendency will ultimately cause the architect to be again recognized as an artist. The executive specialist knows the intricacies of building. He realizes keenly just where the architect is an indispensable part of his program. He confines the architect to his specialty just as he confines his business and financial managers to theirs. In a supervisory capacity he requires the architect's service only to a limited extent. The executive head of the great corporation is the Commander-in-chief—the architect is the General of Division—the technical and artistic Division, and in this division the architect has his engineering, sanitary and electrical experts, all responsible to the Commander—through the architect. In the details of their specialty they are supreme, provided they do not encroach upon the limitations of the other specialists or interfere with the general scheme.

It is the architect's duty to keep each specialist within his limitations, and the

architect himself must bow to the same inexorable laws. His principal value in the realm of supervision is as an advisor.

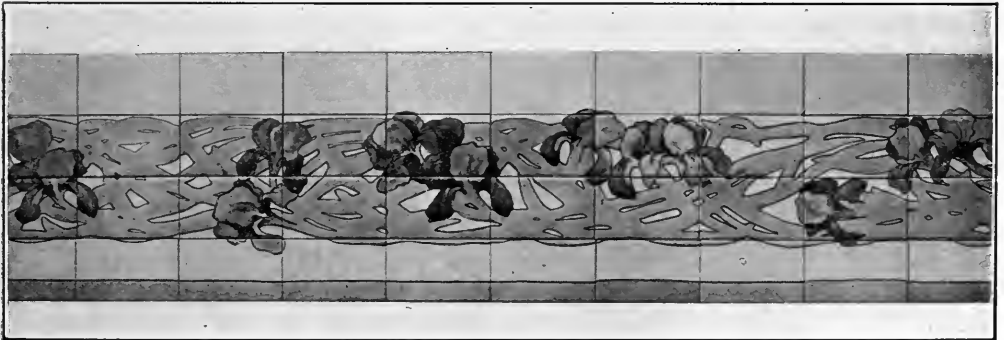
In the complicated construction of modern work the professional electrician, the heating and ventilating engineer, and the many other specialists whose work contributes to the finished product must each be left to attend to his own details. The architect cannot be expected to master the intricacies of their work, of which they are the most competent judges if kept within their proper sphere.

The architect is needed to supervise upon his own initiative only as far as the finished product is concerned. The obtaining of estimates, preparation of contracts, the mass of correspondence and other details consequent upon the erection of a great building, together with the vast business interests of the work, are supervised and managed directly by the corporation through its experienced and well-oiled business machinery.

This is the system of the future; in some cases of the present. Under its influence the architect will again be left time to design—to plan—to draw—to give the best results in the specialty for which he is properly equipped—in fact to be an architect. His power will not be as great as under the older system, but he will be an artist and will accomplish his mission.

There is no use in bewailing the conditions which have caused this decadence of the most ancient of the arts. Architecture never created a civilization. Its monuments are the answers to that civilization's needs. Its lasting monuments are its successful answers, created under conditions which allowed of the putting forth of the best efforts of the designers. Other conditions now confront us. From them there is no appeal. They are fixed. They all tend in one direction. How will architecture live as a vital artistic force under the new conditions unless it obeys the industrial law?

—Charles Henry Israels.



DETAILS, IN ROOKWOOD WARE.

NOTES & QUERIES.

A NEW MANUAL ON MEDIAEVAL ART

Mr. W. R. Lethaby has contributed a book on Mediaeval Art to that series of art-manuals which is published in this country by Charles Scribner's Sons. They are stout volumes of small octavo size, and Mr. Lethaby's book contains 315 pages with 66 full page half-tone plates and more than a hundred text cuts. Now Mr. Lethaby had shown himself before a remarkably keen and also a remarkably affectionate student of early art. He has made Byzantine architecture his peculiar study; but then it could hardly be otherwise, once he had become familiar with its great monuments. Is there on earth an architecture more fascinating than that of the eastern Roman Empire during its flourishing time? Even in much later times, even unto the present day, as it still lingers in Armenia, in Russia, and in the borderlands of the Balkan Peninsula, how interesting it is, how simple, and how receptive of refined ornamentation! The charm has gone out of it now, but some of the old spirit is still breathed around its latest monuments; and as for the buildings of the sixth century and of the four hundred years which followed, they have, for all persons who enjoy the diversified in architecture—the graceful and fascinating, the varied and brilliant in decoration—an attraction which no other style can claim. We can imagine, if we please, a similar gentle charm of design in Greek work of the prime, when color and gold were used with delicately conceived and perfectly modelled sculpture, but we have lost that, and indeed it is to Byzantine art that we must go to recover some part of the ancient Greek spirit. Gothic art is immeasurably more strenuous, more energetic, more full of daring construction and bold innovation in the way of adornment, but for lasting beauty the Gothic art even of France and of the thirteenth century must be thought inferior to the exquisite art of Byzantium.

Now it is in that way that Mr. Lethaby's studies lead him to speak. Consider Chapter IV. of the book we are studying, the chapter on Romanesque Art in Italy. He begins with

the declaration (p. 91), that wherever in Italy we see a school of architecture grow up, we shall find its root in a new impulse from the East; and this he maintains to the exclusion of the assumed Lombardic influence and to the point of ranking much lower than they are usually ranked the native Italian impulses toward noble art, as they existed before and during the eleventh century. Mr. Lethaby bases his opinions firmly upon his own observations, and buttresses them by the opinions of the best recent authorities, Cattaneo, Venturi, Stiehl and Strzygowski. But indeed our immediate purpose has less to do with his examination of the origin of Italian Mediaeval art than with his analysis of that art itself, and the Byzantine art which he thinks gave it birth. The Byzantine art is treated in the earlier chapters, I. to III. inclusive, and this is the charm of those chapters as of Chapter IV.—that there is so hearty an enthusiasm, so profound a love of beautiful art seen in every phase. This is the key-note of Mr. Lethaby's exposition—he cares for the construction and for the logic of the thing, and enjoys solidity and permanence and the traces of natural evolution; but what he really feels is the beauty of each separate work of art, its hold upon the imagination of him who sees it and him who goes away from it remembering its immeasurable beauty. That feeling of his we see in the selection of his subjects: Plate V. with a fragment of Sancta Sophia at Constantinople, the springing of a vault with the capital and impost which carry it and the shaft below; Plate VIII., with a capital in the same church reproduced in our Fig. 1; Plate XIV., a bit of the great mosque at Damascus with two tiers of windows with three openings in each, an exquisite piece of detail; Plate XV., also reproduced (see Fig. 2), the Ravello pulpit with its Cosmati work, its partial inlay of glass mosaic following the spiral reeding of the shafts and expatiating freely over the flat panels of the pulpit proper; Plate XXIII., the wonderful fountain enclosure at Monreale—such pictures as these are selected because of the impression they have made upon Mr. Lethaby's own mind and because of his conviction



FIG. 1.—A CAPITAL IN THE CHURCH OF SANTA SOPHIA.



FIG. 2.—THE RAVELLO PULPIT—A SPECIMEN OF COSMATI MOSAIC.

that they are among the loveliest things which the art of decorative building has given us.

—

I am sorry that Mr.
Lethaby did not care to
consider those refinements
in early Mediaeval art
which Mr. William H.
Goodyear has revealed to
us, making them his special
study. The delicacy of per-
ception found in the artist, and expected by
the artist in his public, is part of the lesson
we have to learn from the Middle Ages;
and certainly these curves, these slopes,
these diminutions replacing for us what we
had supposed to be straight lines, accurate
horizontals and verticals and equal sec-
tions throughout, would form a useful study
for the modern man if he would attend to
it. It pleases the student to know that even
in our own commercial time and city, some-
thing of that spirit has been revived, as in
the approaches to the central buildings of
Columbia University and as in the slowly
rising Cathedral of St. John the Divine.
Mr. Lethaby would be just the man to take
these discoveries at their full value, without
exaggerating their importance, and we can-
not but hope for speedy opportunity to read
his thoughts on the matter.

But in most of the aspects of Mediaeval
art we have original as well as enthusiastic
discussion, for the author thinks that it was
the monks who spread Gothic architecture
about Europe (p. 264, foot note), and this in
spite of Viollet-le-Duc's dictum on that
matter; he tells us of important decorative
glass without stone tracery at all and evi-
dently intended to be completed without such
tracery, having iron bars arranged in a pat-
tern; as in Canterbury Cathedral (see p.
267), and with a citation of a similar in-
stance named by Viollet-le-Duc in his famous
dictionary, a reference which I have fol-
lowed up to find the description under the
term *Armature*, and relating to the little
church of Notre Dame at Dijon. He dis-
putes the theory of Gothic being almost ex-
clusively a constructional art and objects
decidedly to Mr. C. H. Moore's resolute de-
nial of the term Gothic to so many noble
buildings of the Gothic period; and this
protest is based very largely upon his mys-
tical feeling, his desire to find remote asso-
ciations and subtle refinements of spirit
among the Gothic builders. It is to be re-
gretted that these enthusiastic, these loving,
these truly critical investigations and
thoughts should not be arranged in a way a

little more symmetrical; for indeed it is
hard to use the book except in the way of
straightforward reading through. Now, if
there is any one of my readers who finds
time to read through anything longer than
these "Notes and Queries," his experience
is different from that of most architectural
students of this time and place.

—

THE RE-
MOTENESS
OF
MEDIAEVAL
ART

It is in this way that
Mediaeval art has a spe-
cial and unique power
of interesting its students.
In the light of the ex-
periments of the last forty
years—experiments in re-
viving this and that his-
torical style—it does appear plain that the
modern world can hardly turn to the Med-
iaeval world for direct inspiration in build-
ing. The standards are too widely different,
the objects pursued are too remote each
from the other; Romanesque has been found
too rude and unorganized; pointed Gothic
art has been found too harsh and violent;
Byzantine art has not even been tried ser-
iously, because evidently too quiet and sub-
dued. To use the Romanesque style you
must have the simple and obvious ways of
building of eleventh century France and Ger-
many; to build in the pointed Gothic style
you must desire above all things vast vault-
ed interiors and you must forget your train-
ing in the ways of classical art with its
horizontal lines and its gravity; to build in
the Byzantine style you must think calmly,
design patiently, work slowly; putting in
delicate inlays and subtle, refined surface
carvings in the adornment of buildings of
very massive but also very simple structure
with thick walls of brick or concrete and with
rounded vaults. None of these things lend
themselves at all to the modern business
building or hotel, with its multifarious
parts, its many storied complexities, its
need for complicated systems of elevators
and passages, of heating and lighting; of a
metallic structure concealed from view by
a wholly unrelated shell. None of those
ways of designing and building fits the mod-
ern dwelling-house with its immeasurably
complicated needs, and its scheme which may
not be abandoned for a moment without
ruining the very elaborate theory which the
owners of the house have adopted as to
their future home. The church alone lends
itself to construction in the Mediaeval style,
and the church is no longer our controlling
influence. It does not affect the style of our
public or private buildings of every day.
that the churches of the neighborhood are

taking a certain shape—are developed in a certain reminiscence of a certain style. We live apart from the church, at least in so far as building is concerned; and we like it so all the better, as recognizing in the architectural separation of the two classes of building something of that change from week-day bustle to Sabbath calm which remains ever the ideal of most of us.

It is for these reasons that we take Mediaeval art as a subject of abstract and yet loving contemplation, of study such as we give to fine Japanese lacquer or to the delicate goldsmith work of the sixteenth century—we do not propose to adopt those arts in our daily practice, we take them as lovely relics of the past. It is so that we accept Florentine painting of the fourteenth century; it is so that we accept the Greek vases with brownish-red figures on a black ground; we have no possible idea of trying to produce anything like them; they are perhaps all the more delightful to us because they are so remote from any possibility of our modern practice. So it is that we take this exquisite art of the Middle Ages. We can understand Ruskin's glowing enthusiasm as he follows the delicate lines of Venetian sculpture on a tomb, and we trace the significant legends of a virgin martyr through the accounts of the works containing it as we find them explained in Mrs. Jameson and Lord Lindsay. So we find Mr. Lethaby writing with hearty love for the fine, free arcading of Pisa and Lucca, the "tiers of splendid arcades screening the solid wall"—"their sharply defined shadows thrown against the marble walls behind, so that arcades of light are counterchanged against arcades of shadow." So in dealing with Gothic art we find Mr. Lethaby eager to insist upon its unfamiliar aspect, on its being "a sort of fairy story in stone." He thinks that "the folk had fallen in love with building and loved that their goldsmiths' work, and ivories, their seals, . . . should be like buildings, little tabernacles. . . . Some of their tombs and shrines must have been conceived as little fairy buildings; they would have liked little angels to hop about them all alive and blow fairy trumpets."

Indeed it is what I like best in this fascinating book that the author is so ready to explain that he expects no imitation of these ancient times by the men of his own time. He protests earnestly against restoration, he values the serious and thoughtful old work for its very thought; he does not want the men of nowadays to make believe as to having the same thoughts.

R. S.

**TWO
STREET
FRONTS BY
RICHARD E.
SCHMIDT**

The architect of the Schoenhofen brewery has not been content with the decided success scored by him when that building was completed, but is following up his invention—a style for simple buildings, with which we must reckon. This month we have two photographs from him, taken unfortunately on the axis of the building in either case, so that the awkward effect is produced of that perspective which shows the right hand jamb of the opening at the right and the left hand jamb of the opening at the left, these sloping towards one another. Such a disposition requires the curved perspective line of the straight horizontal string-courses, for without that feature the front looks very artificial and false; it looks like a drawing fresh from the architect's office. Now in the picture, Fig. 3, this curvature is to be seen, at least, in the corners and the other horizontal lines very near to the top of the building. It will be said that, after all, it is just these conditions that we have to face in the actual street front. Not exactly so! When we see the building itself we are free to turn the head about, to move the person nearer to the front; and we are free to walk the entire length of the building and see it from different points of view. When instead of this we must face an elevation flatly, we are badly off; but still there is the real building behind these photographs, to be seen there if we look sharp.

The picture already mentioned, Fig. 3, shows just such a disposition of square-edged, common hard brick as we find in the Schoenhofen brewery. Very rightly, the architect is trying to work out the problem of the possible effect obtainable from that disposition. At the same time, and referring to the articles in the January and February numbers, it may be said that there still waits for him the further and more interesting problem of using bricks cast to pattern for similar and richer decorative effects. It does not require much argument to prove that the alternation of in-and-out and long-and-short, with square-cornered bricks, is but limited in its application. Mr. Schmidt knows this well enough, as we see from the effective little string-course near the top of the building, where in two separate bands the bricks are set corner-wise, producing that horizontal zig-zag, that alternation of sharp ridges and equally sharp re-entrant angles which is familiar to builders of ornamental brickwork. This is a capital front, however. It is a pity that the sign could not be restrained a lit-

tle. It is the right kind of sign for the place and has evidently been designed to form the horizontal band which it does form in the façade, but it would have been well to have stopped it at either end by a boss or a panel or a raised feature of some kind. The eye is not deceived into supposing it to be a constructional part of the building, and therefore its running from extreme edge to extreme edge of the façade is perhaps unfortunate. As for the building itself, one likes especially the fenestration. Was there ever a better device for giving light to a building which needs all the light there is? Apply that maxim to the fronts of the Carnegie Li-

low. If so raised, there would be plenty of wall between the head of one window and the sill of the window above, and a very noble design may be made on these lines.

**THE USE OF
THE
SEGMENTAL
ARCH**

The illustration, Fig. 4, is hampered by the segmental arches of the basement story. Is it not a singular thing how very uncommon is a successful treatment of the segmental arch? It has generally been avoided in stately buildings, and indeed one of the



FIG. 3.—A WAREHOUSE IN CHICAGO.

Richard E. Schmidt, Architect.

braries given in the March number! Consider, if you will, the suggestions made in the text of that number about those library fronts and their short-comings in the way of practical utility, and then consider why we should not be allowed to follow some such scheme as the one so brilliantly managed by Mr. Schmidt in this bonded warehouse. There is nothing in the world to prevent such windows as these being raised to five or six feet above the floor, this supposing, of course, that the stories are high between beams, for in the bonded warehouse they are very

worst faults of the would-be grandiose style of Louis XIV.'s time is the use of it as in the basement of the east front of the Louvre; but there seems to be only one way of handling it aright, and that is to crown the pier between the two windows with a very decided double skewback, the horizontal top bed of which stone must be insisted on. Where the last window on the left and on the right comes, the skewback will be single, but it must form part of a band of solid stone blocks, which runs until it reaches the corner of the building or some



FIG. 4.—A FACTORY IN CHICAGO.

Richard E. Schmidt, Architect.

other notable stop. Then indeed the segmental arch seems to have something to butt against, it assumes the appearance of real solidity and of serving a valuable purpose, and then its abstract form is no longer ugly. But the treatment of the segmental arch as in the Franklin building above, with mitring moldings at the starting of the arch, will always be unfortunate. The situation is partly saved in this case by the semi-circular arch at the right. The upper part of this building is logical and intelligently disposed, and if the success is a little less marked than in the building in Fig. 3, it still belongs to the same category of intelligent and comely working fronts—fronts which allow of practical and comfortable buildings behind them.

A SUCCESSFUL MEETING

The dinner, which accompanied the proceedings of the annual convention of the American Institute of Architects, was one of the most successful which that body has ever held. It had the great value of stamping with official approval the professional aims and standards of the Institute. President Roosevelt spoke, and proclaimed his intention of using his influence in favor of the plan of the Washington Park Commission. Mr. Elihu Root, who may be Mr. Roosevelt's successor, delivered an address indicating that he takes a more intelligent interest in contemporary American architecture than any man in this country of similar public prominence. Finally, even the Honorable Joseph G. Cannon, who probably takes a less intelligent interest in architecture than any man of similar public prominence in the country—even this Samson of traditional Americanism—consented to grind corn for the Philistines of architectural art. Mr. Cannon was, of course, wary. He said nothing which could be used against him on the floor of the House, when next engaged in the congenial task of abating the arrogance of the architectural specialist. True he admitted that he was totally ignorant of architecture and art, but ignorance is no disqualification for the possession of strong convictions in relation to a subject—on the floor of the House. His very confession of ignorance, however, gives one a better opinion of the man, and should counsel people, who are frequently irritated by his public attitude, to regard him with tolerance. No doubt he is too old to learn. He will continue to take the wrong attitude on all questions relating to the architecture of public buildings; but inasmuch as

he will certainly be beaten, architects can afford to be as good-natured as Mr. Cannon himself would like to be. It is becoming more and more plain that in spite of the occasional explosions of Mr. Cannon and his like, the stars in their courses are fighting in favor of the prevalence of high professional standards at Washington. An administration like that of Mr. Roosevelt, which stands for the progressive nationalization of American activity, must stand, also, for those professional standards which are really national—that is, for the standards of the representative national organization; and we imagine that Mr. Roosevelt's administration will not be the last of its kind.

FRANCE AND THE UNITED STATES

Of all the speeches delivered at the dinner of the American Institute of Architects on the occasion of its annual convention, that of Mr. John La Farge was much the most interesting; but the address of the French Ambassador, M. Jusserand, also had a peculiar interest of its own. Of course that gentleman was present in his official capacity; and he was bound as the French representative to emphasize the close alliance between France and the United States in the matter of art. But in so doing he had the advantage, as many makers of official speeches do not, of speaking by the book. In fact, the writer, who is an American, is willing to go farther than the French ambassador in testifying to the intellectual ties which attach this country to France. Some of them are, of course, sufficiently obvious. That current American practice in painting, sculpture, and architecture is the result in large part of French training is sufficiently obvious; and no American artists more cordially recognize this fact than those who have themselves shaken off the accidents of the attachment—the mere mannerisms of modern French art. But there is good reason to believe that the intimacy of this attachment indicates something more than the immaturity of ignorance on the one side and on the other the fecundity of knowledge and skill. It means, I believe, a similarity of intellectual disposition between French and Americans, which may make their relations even closer in the future than they have been in the past.

Frenchmen have been the only modern people, who possessed the gift of being wholesomely and constructively imitative. On many different occasions since the Renaissance, Englishmen and Germans have tried to imitate what they believed to be the superior

literature and art of some foreign country. The English and the German playwrights of the 18th century made persistent attempts to naturalize the French classic tragedy; but they lacked the intellectual flexibility and sympathy necessary to such a task. They failed absolutely to build up a national drama on the basis of their critical ideals. In the case of painting they had the good sense for the most part not to try any imitation. The English painters of the 18th century did in their landscapes owe something to the Dutchmen; but the amount of borrowing they did required no great effort of sympathetic imagination. In architecture the English adoption of Renaissance, Italian and Palladian forms was more successful than her essays in literary naturalization; but then as now architecture was imitative or nothing; and whereas the French architectural imitations have developed some kind of an authentic tradition, those of England, the country house apart, are still miscellaneous and vacillating. In one conspicuous instance, a German, a man named Goethe, did succeed in perfecting a masterly imitation of the Greek drama as a literary form. Iphigenia is, perhaps, the bravest attempt made by any man of letters to express a modern subject-matter in a classic form. Yet the difference between Iphigenia and the first part of Faust is the difference between a drama which a great man tried to make and a drama which he brought forth without effort from the depths of his own individual and racial genius. For better or for worse the Germans and the English are awkward about imitating alien critical and artistic forms—even those which at the time they thoroughly approve.

In this respect the French are very different. At the end of the Middle Ages they decided to break with their own intellectual and artistic past, and create a new literature and art, which should derive its inspiration from Italy and from Greece. They were fascinated by the memorials of Greek and Latin civilization; and the endeavor to adapt their own national forms of expression to the established forms of Italy and Greece infected not only their art and their literature but their foreign and domestic political policy. Thereafter it became their settled purpose to reform their art and their literature in the light of the models which they believed to be most worthy of imitation; and for more than a century French painting, sculpture and the drama was occupied chiefly in naturalizing these alien forms and methods. From the beginning they modified the models which

exercised such a fascination upon them; and the chateaux of the Loire, the reliefs of Jean Goujon, and the punctillious paintings of Poussin are all of them as obviously French in some respects as they are Italian in others—just as the tragedies of Corneille and Racine are Greek only in the use of certain dramatic forms. They imitated with success, with conviction and with persistence; and their imitation so far from destroying their power of original expression, merely gave it a certain direction. It must be admitted that there is an analogous difference between the comedies of Molière and the tragedies of Racine, as there is between Goethe's Faust and his Iphigenia. The borrowed forms were inadequate to express certain peculiarly French varieties of experience. But the process of naturalization was a process, whereby French art in all its forms was made increasingly adequate to French life. A genuine national tradition was wrought out of this mixture of alien forms and domestic materials. Moreover from the very necessities of the process French culture was given an altogether peculiar integrity. Art and literature and criticism became in France intimately and formatively related, instead of being widely sundered as they have been in England. French criticism, so far from sapping the vitality of French art, has helped to keep it alive and moving. The French no longer imitate foreigners to any considerable extent; but they imitate each other very successfully and that, when it comes to the foundation of a national tradition, is the important thing. To be within limits intelligently imitative, is a great assistance to a people who wish to rise to a high expression in the fine arts, and it is quite compatible with fundamental originality. An imitative people may lack initiative, as the French do for instance; but the fact that they are imitative does not necessarily diminish their power of original vision. It all depends upon the use to which the borrowed capital is put.

There seem to be good reasons for believing that we Americans may prove to have something of the French faculty of constructive imitation. The French Ambassador, in the speech mentioned above, states that in a letter received from the Secretary of the Ecole des Beaux Arts, M. Jouin writes of the American pupils at that school in the following terms: "Of all foreigners who come to France to practice the arts of design, the American is the one who penetrates most easily and most deeply the genius of our nation." American art students have certainly learned their lesson in France as

the students of other nations have not. Modern French painting, sculpture and architecture has put forth flourishing offshoots in this country, because American pupils in Paris possess that mixture of mental flexibility and sympathy with a desire for excellence, which lies behind any successful adoption of a foreign artistic method and tradition. Indeed, if Americans did not possess this faculty of constructive imitation, if their creative powers were very much impaired, as is that of the English or the Germans, by the attempt to adapt their art to their critical ideals, American art would have very little chance of becoming consummate. Art forms and traditions are not a matter of inventions neither can they be derived merely from a study of nature. They are a matter of intellectual disposition, tradition and discipline. We have in this country no treasure of early racial and national experience on which to draw for our national forms of expression. We are a composite people, and one whose composition is becoming more rather than less miscellaneous. Just as we are gradually moulding this miscellaneous population into naturalized Americans, so we must mould our forms of expression in conformity with what we believe to be the best available discipline and tradition. Our art, consequently, no matter how little our artists appreciate the fact, is in large measure shaped by definite critical ideals, and, even after certain formative traditions are naturalized, it must continue to be modified by the same conscious intellectual influences. It is, necessarily, a matter of ideas as well as of imagination and training, and it is for this reason that we should welcome the French influence in American intellectual life. It is the French intellectual and artistic discipline and integrity which we need—the ability to think consecutively about materials and methods of artistic expression without any paralysis of spontaneity.

**MR.
LA FARGE
ON USELESS
ART**

It has been stated above that the speech of John La Farge was much the best of the several speeches delivered at the dinner of the Institute; and it was the best because it was the speech of a man whose thought had ripened his experience of his art into fullness of expression. No paraphrase can do justice to this little address, and it is reproduced herewith without changes or deductions. He said:

"Mr. Chairman and gentlemen, the fate which overtakes me is a frequent one. I was to have spoken earlier, but the gentlemen who have spoken before me have said almost all that I could have wished to say. Therefore I shall take up the affiliation, if I may so say, which our Ambassador from France has hinted at. As he has said, my own affiliations, my own trainings, with those of many of us, have been French. I feel that when allusion is made to the French artist who scraped on the bones of the cave-bear, he was distinctly my ancestor. (Laughter.) Through all these thousands and thousands of years I go back and feel that, after all, the only one who has drawn as distinctly and as well, with that firmness of touch, that far-down feeling of nature, is perhaps derived from such an ancestry, but happens to have been born on the fierce, wave-beaten coast of New England; and the only man who has ever drawn exactly upon the lines of the dwellers with the cave-bear is a great American painter, as great as any in the world—Winslow Homer. (Applause.)

"The artist away back, the painter, hardly existed except in such a form; he was useless then, and to a certain extent he is useless now. That is his great advantage, and that is his great honor. The architect represents in the arts the useful side; his art is that of utility, and all the more honor to him when he blends with that utility the uselessness of the last and the most indefinite of the arts, the one I am called upon to represent, the art of painting, which could be of no use in the far back, except, perhaps, to disguise some man in ambush, who painted his face so as to surprise some one else, or to decorate the dress of some savage lady. The art of painting comes after all the others; it is based, as we now know it, upon the use of the outside world; it is the representation of an idea by an image of the outside world, and consequently it has no end. It has had these vague beginnings, but it has grown with the entire human race. Every acquisition of knowledge, of learning, has gone on with it, and the very last studies of science are used by the painter. The other arts are fine arts, and indeed that is their glory, that they keep a more fixed condition. The architect, therefore, when he calls for help to the painter has less use for him than he would for almost any other form of art. It is merely to recall the fact that there is such a thing as useless beauty, that there is something to elevate you outside of the ideas of utility, that the painter comes in. He has but few things in connection with the architect. It is true that



FIGURE OF A PURITAN.

F. M. L. TONETTI, Sculptor.

he has always had them. He has the ideas and the representations of space, and of line, and of light and dark and what we call color, and that is all. The rest is entirely outside, and therefore we know that the architect has employed the painter very late; he has so little need of him. On that account, whenever the painter feels that the fundamental art, the great art of usefulness, can employ him, can help him to say what he has to say, he feels at length that the end of civilization has come, and that he represents at length, finally, what civilization, what culture means, the cultivation of the useless, the thing that the Greek called the noblest use of the mind, the thing that the great Saint Thomas called "the place of pure innocence," the thing which takes us away from the usefulness of ordinary life. Therefore, when the time has come that the architects representing the earliest and the foundation art need for their adornment the painters' work, the time has come to say that the orbit of things has revolved, and that a new departure, a new birth is now impending. We have not, perhaps, the right to say that we are beginning an unprecedented era, that in a country where naturally, I should say, every man was from his original tendencies an architect, a constructor of buildings, a manager, something more than that is needed. What we have done in the lines of art has been going on now for over a century, and we have come to a place where we need fear the challenge of no one. We have just been assured of what importance the American has abroad. We are now at this very moment going to add to our aspirations, to the promise in the future, to the glory of the future, to the future charm of life for the artists of all kinds, a connection with Europe which has been wanting, the placing of the names of our young men in the great city of the past. We are going to be established in Rome, which is apart from all useful matters, upon which I do not care to speak. This is in itself a statement that we, too, are rivals of all that has been done, and intend to rival all that shall be done, and we can then feel that the old cycle is closed, and that a new one has begun.

"The Institute of Architects represents all this; it is to be the guardian and the helper of the more ornamental side of the arts. It must be connected with what I have spoken of, the beauty of this American ambition, this American hope in the very center of Europe, and we artists feel that with the architects of the United States we are now bound and inseparable." (Applause.)

CIVIC CENTRES

One of the most encouraging symptoms of its kind we have encountered presents itself in the form of Bulletin No. 2 of the Municipal Art Society of Hartford, Conn. It is entitled "The Grouping of Public Buildings," and it consists of a series of suggestive essays on various aspects of its theme which have already appeared in various Connecticut newspapers, published in Bridgeport, Hartford, Meriden, Waterbury, and New Haven. Each has some expert character. The collection is made and edited by Mr. Frederick L. Ford, City Engineer of Hartford, and one of the vice-presidents of the society, who contributes to it for his own part the initial paper on "Connecticut's Opportunity." The opportunity, it seems, is to make the state capital "the centre of a conspicuous group of public buildings." The building already has the advantage of an admirable setting in Bushnell Park, which it seems the state owes rather to the providence of the citizen after whom it is named than to any official foresight, just as New York owes both Gramercy Park and Union Square to Samuel B. Ruggles, the former being a private park reserved from his own estate, which it has repeatedly repaid, but the latter the result of a successful struggle, of an Ephesian character, with the Street Commissioners of 1807, over whom it is quite possible that Mr. Ruggles prevailed only because they did not see their way to extending their Procrustean gridiron over so intractable an area. Bushnell Park, decorated by the Capitol and the effective bridge and Memorial Arch, has on three sides, it appears, the assurance of being fronted with buildings worthy of the situation. But at one corner of it is an unsightly and extensive railroad roundhouse. The President of the New York, New Haven and Hartford, acting quite in the spirit of the president of the Pennsylvania when he agreed to take out of the way the station which was such a manifest and grievous obstacle to the execution of L'Enfant's original plan of Washington, has expressed his willingness to vacate the site of the roundhouse, some twelve acres in extent, and leave it open for some improvement more congruous with its surroundings. Mr. Ford's paper is a plea for the acquirement of this site as the site for a new State armory already authorized, but officially recommended to be built elsewhere and in isolation.

It is to reinforce this plea that he brings together the other articles that make up the pamphlet. It was a work well doing apart

from this specific motive to doing it. Among the articles are one on the advantages of grouping by Mr. J. G. Phelps Stokes, an extract from Mr. Charles Mulford Robinson's "Civic Art," a paper on "Civic Centres," by Mr. Guy Kirkham, of Springfield, giving an account of the interesting work which has been done in the direction of creating such a centre in Springfield; an account, by Mr. George A. Parker, of the situation of Providence in this respect, and of the effort that is making to establish a civic centre there; a description, by the same writer, of the ambitious improvement in Cleveland; finally an exposition by Mr. Glenn Brown of the new-old plan of Washington. In addition sufficient descriptions of Paris, Berlin and Vienna to give a notion of the great importance attached in each of them to effective grouping of public buildings. Finally, enough of illustration fairly to elucidate the text.

It is a work admirably worth doing, and nobody interested in the subject into whose hands it may come is likely to let it go out of them. It is especially inspiring as showing that civic pride is taking on a rational and artistic form in the American cities of the second and even the third class. It is familiar that such cities have more civic pride, per capita, than their biggers. They certainly have quite as high an average of intelligence, and manage to bring quite as large a proportion of it to bear on their municipal affairs. What is most needed to secure municipalities worthy of municipal pride is to direct municipal improvements along artistic lines. One way, and the best, at least the most indispensable, is to present object lessons of the result of efforts so directed. The second is to assure the common sense of each community that an orderly, reasonable, artistic arrangement of a city is a good municipal investment. The first of these objects has been attained, for stay-at-home Americans, by means of world's fairs. Whatever may be said about the detail of the Court of Honor at Chicago, it did fix, in the minds of the people of the United States, a higher ideal of aggregated architecture than they had or could have had before. Every municipal improvement that has been projected since, on any important scale and on artistic lines, directly owes its being to that great show. Washington was the only actual town in the country which had in any respect the same attractiveness of pompous architecture. And the attractiveness of Washington had been diminished and effaced by the neglect into which the general plan had been allowed to

fall and the excrescences that had been allowed to overgrow it. It is not too much to say that the attempt to rescue and execute the plan of the capital would never have been made if "the White City" of a single summer had never existed. By the nature of its being as a city decreed and determined in advance as a political capital, upon which the money of the whole country was to be spent, and in the development of which it was not necessary to take too much account of the demands of ordinary business for the supply of which other cities have come about of themselves, Washington should be an object lesson to the whole country in the art of city making. With the rehabilitation and extension of the original plan, which Congress has in the main respected as regards the placing of new buildings and monuments, though it has thus far refused formally to adopt it, the capital is in the way to fulfil this function much more completely than it has ever fulfilled it before.

The second requirement is the more difficult of the two to meet. To be convinced what reservations and alterations are needed to convert a city which was partly ill-planned, and has partly grown its own way into a municipal organism one must take long views. For such a conversion costs money and, what is even more to the purpose, it takes time. And, as Paul Bourget has it, your American business man is willing to spend anything but time. It is, in effect, the hard-headed if somewhat narrow-minded business men who are most influential in every American community when they choose to exert their influence, that it is necessary to convince of the value of converting a hodge-podge aggregation of humanity into a municipal organism. For this purpose, and, indeed, for any purpose, it is desirable to lay more stress upon orderly and convenient arrangement and distribution than upon aesthetics, treating beauty rather as incidental, as a by-product of orderliness and convenience, than as the end and aim of improvement. And in fact, this is the normal and proper order. When these notions get possession of the American people who live in cities, it is in cities of the second and third classes that we should expect to see them bear fruit in advance of cities of the first class. In the smaller cities, the cost of Haussmannization does not seem so enormous and prohibitive, not even in proportion to population and wealth. One hopes that Mr. Ford will carry his point in Hartford. In any case, one is obliged to him for assembling such a body of doctrine on the art of city-making.

A DENVER MOVEMENT

Denver is another of the cities that have recently fallen in line in an effort to create a civic center by grouping the public buildings. The movement there is somewhat popular in character—an encouraging attribute—and yet it is without that undirected vagueness that usually does more than anything else to make popular efforts ineffective. An art commission has been recently created, and under its auspices and those of the Municipal Art League and of the Artists' League, a public art conference was held. At this there was urged the purchase of the blocks east and west and right and left of the old court house, the erection on one block of a new city hall, on another of a new court house, on the third of a new post office, and on the fourth of an auditorium. Other matters discussed were the construction of a drive along the shady Cherry Creek, the erection of several small ornamental fountains, the removal of overhead wires and of hanging signs. When the latter step was advocated, a remarkable scene ensued. The business men who filled the hall—in this city fast losing those attributes that are called "Western"—shouted from all parts of the room, "We will; we will!" This is the sort of enthusiasm from which come results.

MASSACHU- SETTS CIVIC LEAGUE

The Massachusetts Civic League, which is somewhat unique among organizations, has recently issued in pamphlet form its report for the year 1904. The interests of the League, with its eight committee divisions, are very wide, though "not wider," it has been well said, "than the legitimate interests of citizenship." Its great purpose is effectively to express public opinion—not always the same thing, it should be noted, as popular opinion—and it seeks to do this by unifying and directing the energies of town improvement societies and by maintaining a salaried legislative counsel to watch matters at the State House. Incidentally it does various other things, in and about Boston—maintaining playgrounds, encouraging school gardens, looking out for newsboys, etc. The year was notable for the League. Dependent before on contributions, it changed its basis during 1904 to that of a paying membership, and it began the employment of a regular secretary who should give his entire time to its work. These were long forward steps,

and with receipts and disbursements of more than fourteen thousand dollars much effective work was done. The Report is quite a model, for it consists of a short statement by the secretary and then of brief reports from the committees. Eight legislative bills were supported by the League, and every one of them became a law. One was that which established a limit of building height in Boston by dividing the city into residential and business districts, and designating the limit for each. In April of 1904 the League, having found in the State 170 village improvement societies, 48 women's clubs, "a part of whose work was along betterment lines," 160 civic and other similar clubs, and a large number of Granges that ought to be interested, arranged a State Conference for Town and Village Betterment. To this delegates came from local societies in all parts of the state, and it was decided to hold the conference annually. The League is preparing for these societies a series of practical leaflets, which include "Public Buildings," by J. Randolph Coolidge, Jr.; "Town and Village Landscape," by Frederick Law Olmsted; "The School that Made a Town," by Walter H. Page, etc. It were well if each state had such an organization to direct and aid the struggling local improvement societies.

BALTIMORE IMPROVE- MENTS

A personal letter from the chairman of the Burnt District Commission of Baltimore, Sherlock Swann, Esq., gives an interesting view of the comprehensive improvement plans now courageously confronted in that city and of their financing. The fire of 1904 burnt, he writes, an area of 140 acres on which were about 1,500 buildings. Before the fire was fairly out, plans were afoot for re-planning the district. The mayor called together for advice a large committee of prominent citizens, and the result of their deliberations was the appointment of the Burnt District Commission, of six members, to carry out the recommended system of street and wharf improvements. The city already had on hand \$4,600,000 (from the sale of the Western Maryland Railroad) and it authorized a loan of \$6,000,000 additional. In addition to these sums, placed at the disposal of the commission for improvements, the people will vote at the spring election on the issuance of a loan of \$2,000,000 for the improvement of suburban districts, of \$1,000,000 for improvements in the park system (recommended by the recent report of the Olmsted Brothers), and of \$10,000,000

for the construction of sewers. Further than this, the city is planning to ask the legislature for authority to float a \$5,000,000 loan for street paving, a loan of \$1,000,000 for new school houses, and of \$1,000,000 for new fire houses, making, with the amount now on hand, a total of \$30,600,000.

As for money returns on this large investment, Mr. Swann writes: "The sewers, when built, will be self supporting. The amount to be expended for the park system will not require any increase in taxation as the receipts from what is known as the 'Park tax,' paid by street railways, will meet the interest and allow for a sinking fund. The loan for suburban improvement will bring into the full rate of taxation hundreds of thousands of dollars' worth of property which now pays a very low rate." He adds that, as respects the street widenings,—which, besides their actual cost, involve the removal from the tax rolls of about 600 pieces of property—the value of the abutting land will be so increased by the improvement as greatly to enhance the assessed valuation for taxable purposes. As an in-

stance, he says: "On a small street of the district there is a piece of property which hung fire in the market for many years. It had a building upon it, and was about 80 feet deep. After the fire, which destroyed the building, we took 20 feet from the depth of the lot to widen the street. An offer of double the price previously asked (with the building on the land) has been now refused." In regard to the dock development, he says that applications for leases already exceed the space available by "certainly five-fold."

It may properly be added that much of the courage and energy with which Baltimore is now facing the problem of making itself into a truly modern city is due to the present mayor, Hon. E. Clay Timanus. He early declared that politics should have no part in this movement for public improvements, and appointed various committees of business men to consider, and report in detail to him and an executive committee, for further consideration and active inauguration of a remedy, on the various needs of the city. This spring's campaign for the loan will also be pushed by a committee of citizens.



APARTMENT HOUSE ON MADISON SQUARE, NEW YORK CITY.

Howells & Stokes, Architects.

INTERIOR FIREPROOFING.

[The following is the sixth of a series of Technical-Industrial Reports upon a certain System of Fireproofing, made to the Manufacturers by the well-known expert on Building Construction, Mr. William J. Fryer.]

Destruction by Electrolysis

Equally as impossible to tell with any degree of accuracy to what extent rust is eating away the steel columns concealed from sight in a skeleton structure, is it to tell the extent of damage being wrought to the steel columns by electricity. The process of destruction by electricity is a gradual wasting away of the steel, the metal becoming pitted as if with smallpox. The electric pitting gradually weakens the column by the eating through of small, sieve-like holes, and when these holes become sufficiently numerous a sudden shock or jar such as frequently occurs in a building will break the weakened column in two. Unquestionably leaks from electric wires are working destruction to the steel in skeleton structures.

Question of Durability

If, then, there are great doubts as to how long the steel frames of skyscrapers will remain intact by reason of moisture, water, steam leaks and electric wire leaks reaching and affecting the metal, there need be no fear on the part of any architect or the owner of any building that the Hecla fireproofing material is durable, and in a fire will remain intact long after all the ordinary material surrounding it has perished.

Fire Barriers

The brick walls of a building are good fire barriers, as every one will agree. But these walls are punctured full of window and door openings, and in the case of an adjoining fire it is through these openings, unless properly protected by outside fireproof shutters, or by metal frames

and metal sash and wired glass, that fire enters. In a conflagration the weak points in otherwise good buildings are the unprotected openings in the outer walls. The desirability of placing outside shutters, or their equivalent, on window openings that are, say, not more than 30 feet distant from openings in other buildings is generally recognized. Thirty or forty feet is a small distance for flames to leap across when impelled by strong winds, and enter another building where the openings are not protected. What is not so generally known is that fire insurance underwriters, in rating a building charge for exposures to a distance of 100 feet. The Baltimore fire taught a lesson that is being heeded, and under the requirements of law protection for openings will be demanded to a far greater extent than ever before; that is to say, that all buildings other than private dwellings and churches will be required to have iron shutters or metal frames and metal sash glazed with wired glass on every exterior window and opening, of the rear, sides and front walls alike, where the distance is less than 100 feet from other buildings. The alternative of using shutters or metal frames and sash glazed with wired glass will probably be the universal rule, except that where the exposure hazard is less than 30 feet the wired glass will be required to be double, with a ventilated air space between the same.

Window Frames and Sash

Outside iron shutters are not and never were popular with owners or tenants. Metal frames and sash are not much liked by occupants of buildings, and insurance men do not like metal-covered wood. Owners, for the most part, will not care to use outside shutters on the street fronts, and will naturally decide to use fireproof window frames and sash and wired glass. Hotels and many

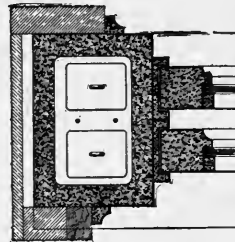
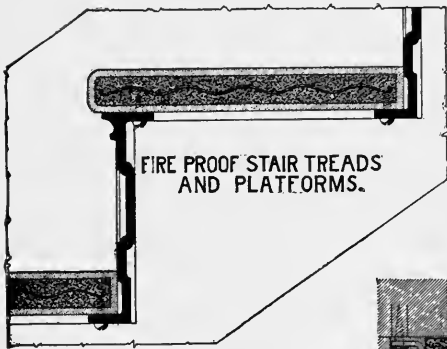
other buildings will decide in favor of the fireproof window frames and sash instead of shutters. If shutters are used, the advantage of shutters made of the Helca fireproofing materials has previously been referred to; they will stand fire without warping, shrinking or cracking, and be a fire stop, not merely a fire retardent. If window frames and sash are decided upon instead of shutters, then the Helca fireproof material

offers something superior to and more practical in its workings than metal, and more fireproof and lasting than metal-covered wood. What the Helca material is has been fully described. One look at the illustration given below will convey to the reader a better understanding of the construction of a window frame and sash than a column of words. No warping, no shrinkage, no cracking, and perfectly noiseless in operation.

"HECLA FIREPROOFING"—PATENTED.
The System of Real Fireproofing.

The Helca Iron Works,

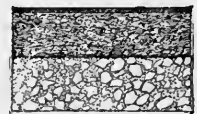
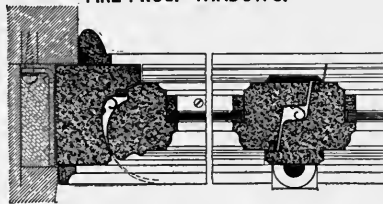
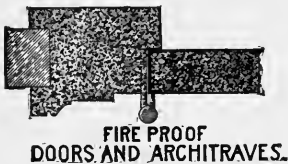
Brooklyn, N. Y.



FIRE PROOF WINDOWS.



F.P. COLUMN COVERS.



FIRE PROOF FLOOR.

THE ARCHITECTURAL RECORD

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FIG. 1.—VIEW OF THE CHATEAU OF LANGEAIS IN 1699.
From a Water Color by Gaignières, in the Cabinet des Estampes, Paris.

The
Architectural Record.

VOL. XVII.

MAY, 1905.

No. 5.

The Chateau of Langeais.*

A cluster of gray houses with narrow winding streets nestles at the base of a number of small hills, intersected with wooded, laughing gorges, through one of the deepest and most picturesque of which babbles the little river Roumer. Out of the centre of the village and on a hillock which entirely dominates it, rise the massive round towers of the Château, with its conical slate roofs and machicolated cornice. The huge structure is gray and severe, as becomes a building constructed for defence, and it commands an admirable position overlooking the plain, through which the broad limpid Loire—a former natural protection against the enemy—flows on its stately course.

Though grayness, even on a sunny day, is the prevailing note of Langeais and its castle, the surrounding country gives anything but that impression. Up on the battlements, to which you climb by a footworn staircase, an extensive view of fertile valleys, undulating slopes covered with vines, orchards white with blossom, rich pasture-land, and green woods reveals Touraine in all its verdant luxuriousness. As far as the horizon, against which, on a clear day, the towers of the Cathedral of Tours some fifteen miles distant can be distinctly seen, Mother Earth stretches in all her glory; and you wonder but little at the fact that this "Garden of France" (a hackneyed but still true metaphor) was

chosen as a site for so many princely residences. Nowhere, indeed, are fine castles so numerous as in Touraine. Glimpses of several can be seen from the *chemin de rondes* on which you are standing. Over there is the white domain of Châteaufort, buried in greenery; to the west is the Château d'Ussé, with its pretty Renaissance Chapel and terraces by Vauban; to the east, at the mouth of the Cher, stands the fine Château de Villandry, where peace was signed by Henry II. of England and Philip Augustus; and on the opposite bank of the Loire, which sparkles through a screen of poplar trees, appear the solitary ruins of Cinq-Mars. Azay-le-Rideau, that masterpiece of the Renaissance, is on the right, but it is hidden by rising ground, on which you can faintly distinguish the Forest of Chinon. Hidden, too, though vivid in memory, are Chenonceaux, Amboise, Blois, Loches, and many another architectural treasure in this wonderful land of old châteaux.

Fresh from visiting Azay-le-Rideau, or any other castle of Touraine distinguished by the richness of its ornamentation, you may be disappointed on first seeing the Château of Langeais. But the impression will not be a lasting one. Thoughtful consideration of this masterpiece of military architecture of the 15th Century will soon convince you that it has a special beauty of its own.

*The majority of the photographs which illustrate this article were taken by special permission of M. Jean Jacques Stegfried. Up to the present the owner of the Château of Langeais has authorized the photographing of only two rooms, so that the pictures in the following pages constitute unique documents.—F. L.

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In its simplicity and severity there is an air of majesty and sincerity which no other château of this part of France possesses. But if its exterior be unique how much more so is its interior! Crossing the drawbridge at the main entrance in the Rue Gambetta, and visiting its thirty halls and rooms, superbly restored and furnished, you will at once admit that here is something the like of which you have never seen before in all your wanderings in Touraine. Mr. Henry James, in his charming book of travel

that the 15th century lives again in its ancient apartments. Seventeen years patient search for works of that period has resulted in the formation of a veritable museum of 15th century art. Anxious that the outcome of so much time and expense should be preserved—the Langeais tapestries, furniture, etc., not to speak of the work of restoration, have cost millions of francs—M. Siegfried has followed the example of the Duc d'Aumale in the case of Chantilly, and offered the Château and its contents to



FIG. 2.—THE CHATEAU OF LANGEAIS ABOUT 1800.

From a Drawing by Dagnan.

impressions, entitled "A Little Tour in France," said that the apartments of the Château of Langeais, "though they contain many curious odds and ends of antiquity, are not of first-rate interest." But that was written over twenty years ago, in the days of white-washed walls and deal flooring; and in the meantime the interior of the castle, as regards furnishing and mural decoration, has undergone a complete change. Since then the Château of Langeais has come into the possession of M. Jean Jacques Siegfried, a wealthy business man inspired with a deep love of ancient art, and he has so transformed it, with the collaboration of Mme. Siegfried, an equally enthusiastic lover of the past,

the Institute of France, on the condition, naturally, that he and his wife retain the usufruct during their lives. In so doing, they hope not only to prevent the castle from passing into the hands of others who might close it to the public, but also that their superb collections will in the future form the nucleus for a still richer museum of 15th and 16th century art.

* * * * *

In the man who superintended the construction of this noble piece of architecture, the Château of Langeais was as fortunate as it is in its present owner; for Jean Bourré, who was born at Châteaumontier about 1425, was also an ear-

nest lover of art, and especially when it was displayed in the form of fine houses. Louis XI., as the Dauphin, had early recognized his many excellent qualities, and had taken him on his journeys into Flanders and Burgundy, where Bourré did not fail to develop his taste for the arts. On coming to the throne, Louis heaped honor after honor upon his favorite. He made him his secretary, entrusted him with the office of Contrôleur

quering Anjou, wished to obtain possession of Touraine, and, advancing towards Tours, had built, in 984, a particularly strong castle on the summit of a triangular hill protected on the south by the Loire and on the north and west by the Roumer. The picturesque, ivy-grown ruins of this donjon are still to be seen in the château grounds.

Bourré was not new to the work with which Louis had entrusted him. It is

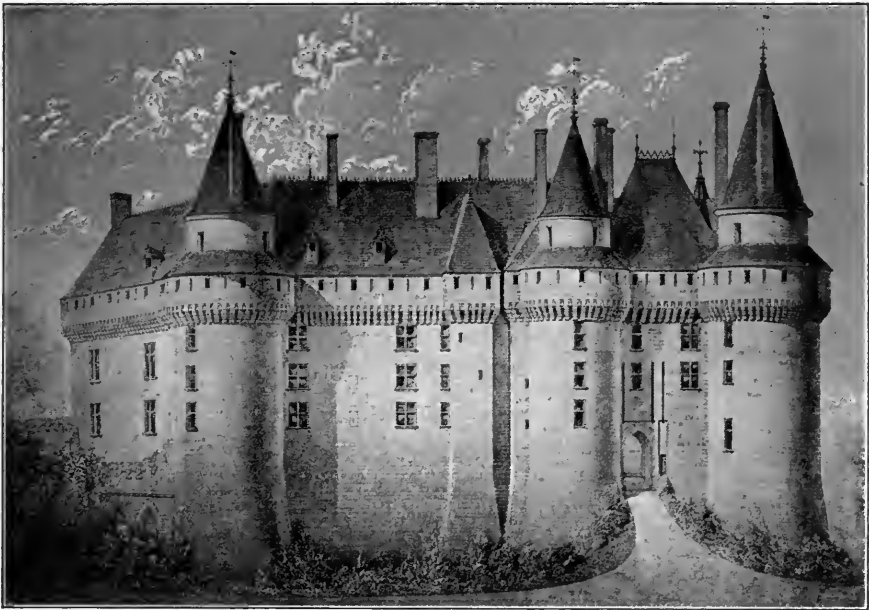


FIG. 3.—THE CHATEAU OF LANGEAIS, AFTER M. BARON'S RESTORATION.

From a Drawing by Victor Petit.

des Finances for Normandy and that of Maître des Comptes, granted him patent letters of nobility in 1465 for his services, and in the same year bestowed upon him the Captainry of Langeais. It was on receiving this last-named position that Bourré, in accordance with the King's instructions, commenced building the Château of Langeais (see Fig. 1). South of the Loire, Louis was well protected from his enemies by the Châteaux of Chinon and Loches; but as he needed protection in the west, decided to construct a castle on the slope of a hill crowned by an ancient fortress of Foulques Nerra. This redoubtable warrior of the Middle Ages, after con-

recorded by one who was almost his contemporary that he "erected and constructed many fine castles and pleasure houses, such as Langès, Longué, Jarzé, Vaulz, Couldray and Antrammes, near Laval." Some, such as Langeais, were for the King; others, as the Château de Plessis-du-Vent, which was commenced the year after Langeais and approached completion in 1472, were for himself.

The Captainry of Langeais was resigned by Jean Bourré several years before his death, which occurred shortly after 1505, and the château then came into the possession of princes of the royal blood. There is no call, however, for particular mention of more than one

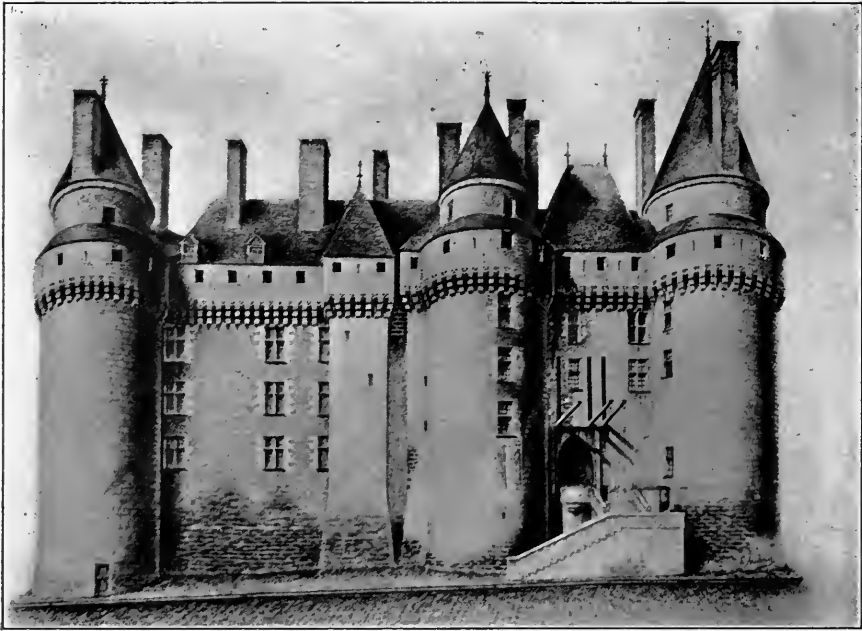


FIG. 4.—THE CHATEAU OF LANGEAIS IN 1886.

From a Drawing by E. Audoin.

of these—Francis I. of Orleans, Comte de Dunois, who is credited with the construction of two of the finest mantelpieces in the château.* These, which are in the large halls on the ground floor and first floor, are beautifully ornamented, in one case with curious heads above a battlement and a sculptural design of vine and holly, and, in the other with blind ogive arcades and a trefoil decoration. All the other mantelpieces are alike, which leads one to suppose that the two specially mentioned replaced similar ones at a time later than that of Jean Bourré.

Passing over the Princes of Orleans and other owners of Langeais, and coming to more modern times, the château, in 1766, was purchased from Baron de Champchevrier by Marie Charles d'Albert, Duc de Luynes. On his death it came into the hands of his son, Duke Louis Joseph, who is worthy of brief mention as having shut himself up in the château during the whole of the Terror. He would consent to make only two concessions to the revolutionary

party: the removal of armorial bearings from his residence, and the destruction of the chapel in the château grounds.

The fortune of the Luynes family having considerably diminished after the Revolution, the Château of Langeais was sold, in 1798, to M. Charles François Moisant (see Fig. 2). But it was then in a terribly dilapidated condition. Of its former splendor there remained, to all intents and purposes but the walls; and the inhabitants of the village had converted it into a place for storing wood and drying clothes! Such was its state in 1833 when M. Christophe Baron, a Paris lawyer, on his way to Nantes, was struck by its beauty and fine position. He inquired if it were for sale, and on April 22, 1839, purchased it from M. Charles Moisant and others who had an interest in the estate. From this time dates the château's new lease of life. M. Baron, who had a love for archæology, restored the castle to the state in which it is shown in one of our illustrations, and furnished the rooms with numerous works of art (see Fig. 3). His taste and knowledge may not

*Langeais et son Château." Par L. A. Bosseboeuf.

always have been applied to the best purpose; but, notwithstanding certain easily remedied archæological errors, lovers of the old castles of Touraine are under a debt of gratitude to him for preserving so fine a piece of architecture from utter decay. He paved the way for wealthier and more competent owners, and that alone is a great deal.

On the death of M. Baron in 1857, the château became the property of his son, M. Charles Christophe Baron. The latter died on December 23, 1869, bequeathing his estate to his widow, Mme. Marie Grandchamp, on whose decease, in 1884, the Château de Langeais came into the hands of M. Albert Lefèvre, her sole heir. Two years later, on July 28, 1886, it was purchased by M. Jacques Siegfried, who since then has spared neither time nor money to restore its ancient glories (see Fig. 4).

* * * * *

History has dealt kindly with the names of the principal owners of the Château of Langeais. But there is one name which she has not handed down to

us—that of its architect. The accounts, containing its cost and the names of the artist workmen who were engaged in its construction, have been lost. All we know is that it was commenced about 1465, and that these accounts were kept by Jean Briçonnet, the King's treasurer, who had a small house in the Rue de la Longue-Echelle. Unknown though its architect may be, however, his work had a distinct influence on the architecture of the early part of the reign of Louis XI. The Château of Plessis-du-Vent, which I have already mentioned, rather strikingly resembles it, and there can be little doubt that both castles were planned by the same architect. Jean Bourré was evidently satisfied with the way he had done his work at Langeais, so employed him to draw up the plans of his own château at Plessis-du-Vent. The Château of Coudray-Montpensier and the Château of Rigny-Ussé, not to mention others in various parts of France, bear traces of the movement which was inaugurated by the work of the man who was employed by Louis' favorite.



FIG 5.—ENTRANCE AND DRAWBRIDGE OF THE CHATEAU OF LANGEAIS AT PRESENT.



FIG. 6.—GENERAL VIEW OF THE CHATEAU OF LANGEAIS AT PRESENT.

In placing the château opposite to the castle of Foulques Nerra, it was evidently the architect's intention to connect them by two fortified lines crowning the château's double escarpment. He first of all built the fortress, properly so called, consisting of a *corps de logis*, stretching from north to south, and flanked by two towers on the side facing the street, with a drawbridge protected by the outer wall. In the north the rampart rose perpendicularly above the



FIG. 7.—THE CHEMIN DE RONDE OF THE CHATEAU OF LANGEAIS.

moat, and in a southerly direction the building was terminated, as usual, by a wall four metres in thickness. The château proper was then constructed, towards the south, a third round tower, similar in dimensions to the others being placed at the far corner. The building was continued at right angles in a westerly direction. The château was defended by a magnificent *chemin de ronde*, 130 metres long and 1 m. 10 broad, with 270 machicolations (see Fig. 7). The façade of the courtyard did not require to be so strongly fortified, and therefore was unprovided with either round towers or a *chemin de ronde*. Notwithstanding the somewhat irregular manner, in which the two parts of the château were joined, this façade, with its three hexagonal towers which serve as staircases, its finely sculptured door-

ways, ornamented with superb wrought-iron knockers, and its mullioned windows with carved stems and other decorative details, presents a most harmonious appearance (see Fig. 8). The middle portion of the château is composed of four stories containing numerous bedrooms; the right wing, on the other hand, has only three, and contains the large halls. There are three series of windows, arranged symmetrically one above the other, the narrow ones having transoms and the others, which are 1 m. 75 cent. in breadth, both transoms and mullions. The dormer windows have a similar decoration to the doorways already mentioned, and the same ornamentation appears on the lintels of the other windows. The right wing, which lies east and west, has a somewhat unfinished appearance, which rather gives one the impression that the architect intended to complete it with a large round tower similar to the three others (see Fig. 9).

Considering the exterior of the Château of Langeais as a whole, an observer is compelled to come to the conclusion that he has rarely seen a structure which met so admirably the double object of warlike defence and peaceful residence. As Mr. Henry James fittingly says: "The whole thing has a fine feudal air, though it was erected on the ruins of feudalism."

II.

Wealthy Frenchmen with a love for science, art, and intellectual progress in general, have of recent years been following the example of American benefactors. Not very long ago, M. Raphael Louis Bischoffsheim made a present of the Nice Observatory and a fund for its maintenance to the University of Paris; in addition to having given costly apparatus to several other observatories, including those of Paris, Montsouris, and Pic du Midi. Again, an anonymous man of wealth, impressed by the benefits to be derived from seeing foreign countries, founded round-the-world travelling-scholarships, which are awarded annually to the most brilliant *agrégés* of

the University. Then, there is the instance of the Duc d'Aumale's generosity. And, finally, that of M. Jacques Siegfried.

But in more than one respect is M. Siegfried comparable to men of the type of Johns Hopkins and Andrew Carnegie. He is a citizen of the world and a great man of commerce; he is the most American in ideas of any Frenchman whom I know; and I think that next to being what he is—a son of Alsace—he

foundations of a business which became more and more prosperous as years went by. As his professor of political economy, M. Levasseur, now head of the Collège de France, said of him many years later: "You were a merchant at an age at which most young men are still schoolboys."

Having made his fortune by extensive international commercial transactions, he set off in 1867 on a tour round the world, from which he returned with



FIG. 8.—THE COURTYARD AND PARTERRE OF THE CHATEAU OF LANGEAIS.

would elect to belong to that young and vigorous nation in the New World of which, in a recent conversation, he spoke so enthusiastically. "I spent three years in America," he said, "and acquired a great admiration for your countrymen." This, to a great extent, was undoubtedly due to his natural love of action. Mental activity in many walks of life has, indeed, been one of M. Siegfried's most striking characteristics. He proved himself to be a man of action at an age when most young Frenchmen have no clear idea of what they intend to do in the world, and between the age of seventeen and twenty-five had laid the

many art treasures. But, at the same time that he indulged his passion for collecting beautiful things, he continued to devote part of his energies to commerce, and whenever possible appointed himself as its champion. As early as 1865 he contributed, by a donation of \$20,000, to the foundation of the Mulhausen Ecole Superieure de Commerce, which was removed to Lyons after the war of 1870.

Setting aside, however, this part of M. Siegfried's work, and returning to a consideration of his services towards art and archæology as regards the Château of Langeais, let me give some idea of



FIG. 9.—THE TWO WINGS OF THE CHATEAU OF LANGEAIS.

the care which he has shown in restoring this fine specimen of 15th century architecture. On purchasing the property, he found that, although the exterior was in a very fair state of preservation, many alterations had to be made before it could be said to present its original aspect. A number of squalid buildings which had collected around its base since the Revolution had to be removed, in addition to certain errors in restoration dating from the time of M.

white-washed walls were covered by M. Lemeire with beautiful decorative paintings inspired by 15th century tapestries and designs in the "Livre d'Heures" of Anne of Brittany. MM. Bonnaffé, Foulc, Emile Peyre, and Spitzer were engaged by M. Siegfried to ransack the archives of large public libraries in search of useful facts, to copy old documents containing details of interior decoration, etc., and to make purchases at sales even in the most distant parts of the country.



FIG. 10.—MANTEL-PIECE IN THE SALON DES FLEURS.

Château of Langeais.

Baron's ownership. Details in the architecture of the roof were changed and an anachronism in the form of a blue clock face was corrected. Infinite care in every particular was taken, M. Lucien Roy, the well-known architect, consulting old plans, ancient documents, and books describing the château in search for accurate information as to its appearance in 1465. Whilst he was engaged on the architectural side of restoration, a number of eminent artists and collectors were giving their assistance in restoring the château's interior to its ancient splendor. The former

No genuine specimen of 15th or 16th century work was too unimportant to be let slip if it made a fitting addition to the Langeais museum. There was one rule in particular which M. Siegfried followed: nothing that he purchased had any connection with war. Like all true men of commerce he is a man of peace, and the interior of the Château of Langeais therefore belies its warlike exterior.

I will now describe in detail some of the superb decorations and unique pieces of furniture which are to be seen in the principal rooms of the château.



FIG. 11.—A CORNER IN THE SALON DES FLEURS.
Château of Langeais.



FIG. 12.—THE UPPER ILLUSTRATION SHOWS A GENERAL VIEW OF THE SALLE DES GARDES. THE LOWER SHOWS A GENERAL VIEW OF THE SALLE DE ANNE DE BRETAGNE.

In an exceedingly pleasant room on the ground floor, called the Salon des Fleurs, is a very effective piece of mural decoration by M. Lemeire, representing mallow flowers and upright branches of cherries (see Figs. 10 and 11); and in the magnificent Salle des Gardes—a hall, also on the ground floor, measuring 16m. 50 by 7m. 30—is a frieze composed of the arms of Anne of Brittany interwoven with her motto: *Potius mori quam faedari* (see Fig. 12). These arms, which are repeated around the room, are accompanied by figures of greyhounds with collars and ermined *mouchoires*. The mural decoration in these two rooms may be taken as an excellent example of the intelligent and conscientious work of restoration which has been accomplished throughout the château. Each room has its special ornamentation, which, in every instance, has been inspired by the most authentic and most appropriate documents. Appropriateness, indeed, is the note which you meet on every side. Take the case, for instance, of the beautiful tiles which now replace what were once deal floors. All these were specially made for the château, and at what an enormous cost may be imagined when I explain that the tiling of no two rooms is alike. That of the Salle des Gardes has a triple design of shells, ermine, and Fleurs de Lys—the three royal badges of Charles VIII., whose name is intimately connected with the Château of Langeais, since his marriage with Anne of Brittany took place in the Salle d'Honneur, generally called the Salle de Anne de Bretagne, similar in size to the Salle des Gardes, on the next floor (see Fig. 12). These tiles are so varied, and such erudition has been shown in their design and arrangement that they would alone form the subject for a special study.

The furniture, likewise, calls for careful attention. This can be divided into two classes: that which is genuine 15th century work, and that which has been copied from ancient models. As far as possible, M. and Mme. Siegfried have endeavored to find authentic pieces; but in cases in which neither love nor money

could obtain them, they have had first-rate copies made from genuine examples in museums. Thus an extremely beautiful cupboard with finely wrought metal ornamentations in the Salle des Gardes is a copy from an ancient locker at St. Germain l'Auxerrois, in Paris (see Fig. 15); but the two stalls on the opposite side of the same room are genuine 15th century work. These stalls are superbly proportioned, and finer pieces of carving do not exist anywhere. The carving of their backs and canopies is a masterpiece of execution. They came from the famous Spitzer sale, like the twenty panels in the Flamboyant style which are in the same room, and which were formerly in the Church of Moulins-la-Marche, in the department of the Orne. Other beautifully carved stalls and seats are to be seen in the Salle des Gardes, the Salle de Anne de Bretagne, and Salon des Fleurs.

There are various types of chairs, many of them authentic 15th century work. Near the mantelpiece in the Salle des Gardes—a fine piece of work which, by the by, greatly resembles a chimney-piece in the Hotel de Jacques Coeur, at Bourges (see Fig. 13)—I noticed two quaint baby-chairs (see Fig. 19). But these are copies, though none the less interesting on that account.

The collection of finely carved cabinets and chests also deserves special mention. In one of the charming bedrooms is a particularly good example of a 15th century *bahut*, and in the same room are several other genuine specimens of works of that period, notably a Spanish torch-holder, a fragment of German tapestry representing a person riding on horseback, and a Virgin in gilded wood of French workmanship (see Fig. 16). In another room can be seen a curious jewel-case, formerly owned by Louise de Vaudemont, which came from the Château de Chenonceaux of which she was the possessor.

What has been said in regard to the above-named pieces of furniture equally applies to beds; that is, some are genuine old specimens and others are careful copies. It will be noticed, however,

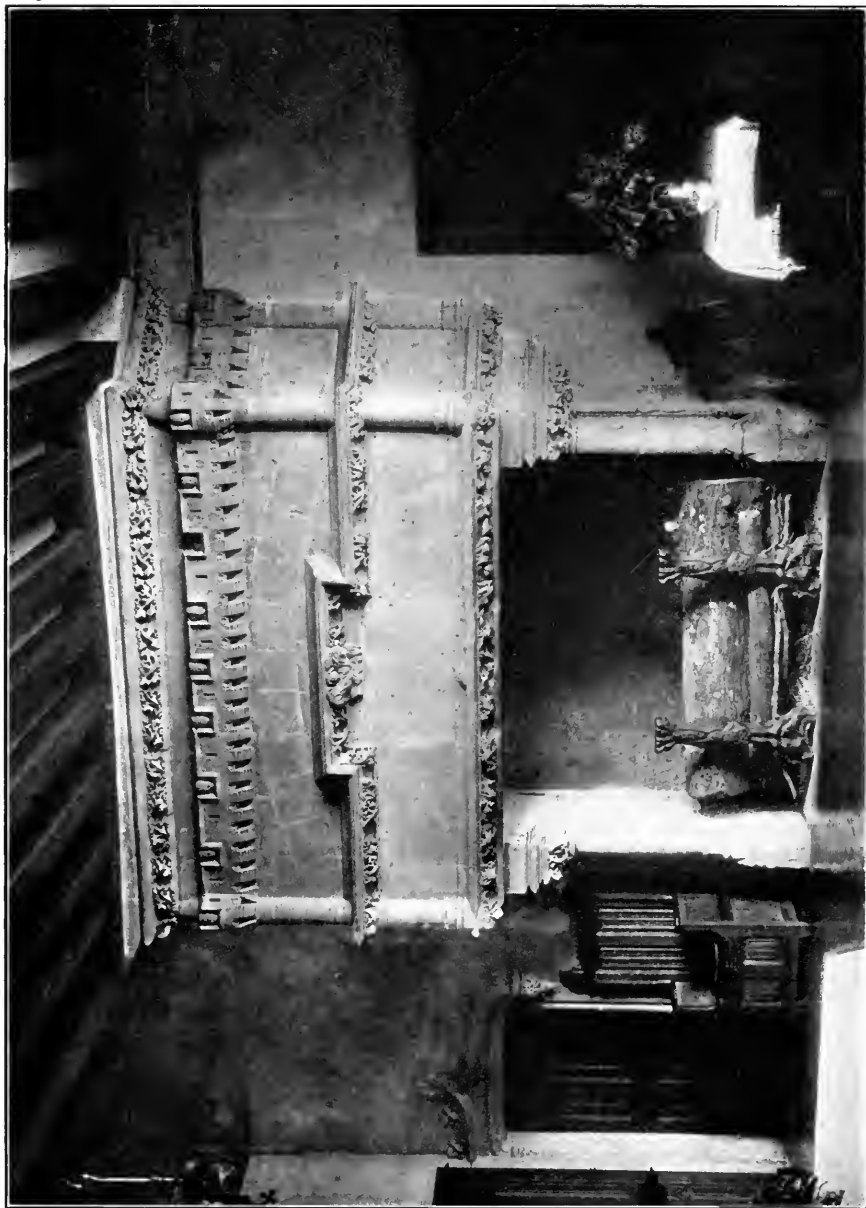


FIG. 13.—MANTEL-PIECE IN THE SALLE DES GARDES.

Château of Langeais.

that most of them are examples of 13th century work.* "The beds of this period," says Viollet-le-Duc, in his "Dictionnaire Raisonné du Mobilier Français," "were habitually composed of a sort of balustrade placed on four feet, with an opening in the middle of one of the sides to enable the person wishing to sleep to slip between the clothes without

Fig. 17), shows a particularly fine copy of a bed given in Viollet-le-Duc, who in turn copied it from a 13th century MS. in the Bibliothèque Nationale containing the "Histoire du Saint-Graal" and other stories translated into French from the Latin. Hangings and testers were often of great richness and beauty, and frequently bore symbolical emblems,



FIG. 14.—ONE OF THE SIDES OF THE SALLE ANNE DE BRETAGNE.

Showing two of the "Neufs Preux" Tapestries.

Château of Langeais.

effort. These beds were low—the height of a sofa. The sleeper's head was raised by several pillows placed one on the top of the other." Metal had been completely abandoned in favor of wood in their manufacture. As to decoration, this is clearly shown in many ancient documents, and the carving and even coloring of 13th century beds can be reproduced with almost scrupulous accuracy. One of our illustrations (see

such as those which are to be read on the Langeais beds: *Potius mori quam faedari—Spera in Deo—Post tenebras spera lucem—Prye à cant d'oiseau—A vaillant (coeur) rien impossible* (see Fig. 17). In addition to an illustration of a genuine 15th century bedstead (see Fig. 18), there is in the château a "Japanese Bedroom," which ordinary visitors to Langeais would be somewhat surprised to find amidst the 15th century surroundings of the château, if they were ever shown it. This is one of the rooms which is closed to the general public; it is where M. Siegfried keeps

*A deviation from the rule to furnish the château in the style of the 15th and 16th centuries which has its advantages from an æsthetic point of view. The beds of the 15th century were cumbersome and not over pretty, whereas those of the 13th were small and elegant in appearance.—F. L.



FIG. 15.—THE END OF THE CUPBOARD IN THE SALLE DES GARDES.
Château of Langeais.



FIG. 16.—PART OF THE COLLECTION OF THE CHATEAU OF LANGEAIS.
A Bahut of the 15th Century—A Spanish Torch-holder—A German Tapestry, and
a Virgin in Gilded Wood.

the superb Japanese furniture, hangings, and art objects which he has collected on his travels.

Mention of these decorations reminds me that I have yet to speak of one of the most important features of the Langeais collections—its tapestries, which in themselves represent a fortune. The first to which attention should be called are two belonging to the series depicting the "Histoire du Saint-Sacrament." These valuable works, which were purchased by M. Siegfried in October, 1888, at the sale of tapestries at the Château du Plessis-Macé, in the department of Maine-et-Loire, originally came from the ancient Abbaye du Ronceray d'Angers. On this Benedictine church being despoiled at the time of the Revolution, they found their way to the neighbouring Church of the Trinity, which sold them to the Château de Serant, whence they passed to that of Plessis-Macé. The complete series was composed of eleven pieces, in which the Sacrament was regarded from a triple point of view: its figures in the Old Testament, its institution, and the miracles which it had occasioned in the Church. M. Siegfried owns the first and the last. Where these tapestries were made is unknown, but for whom is clearly shown by the first of the series, since it bears the initials and arms of Isabelle de la Jaille, who was Lady Superior of the Abbaye de Ronceray d'Angers from 1505 to 1518. They were given by Louise Leroux, then *doyenne* of that religious house.

M. Siegfried also possesses the first panel of the "Histoire de Saint-Saturnin," dating from the first half of the 16th century, a series of eight pieces of tapestry which have an interesting history. Benoit de la Grandière, in a note to one of the last chapters of his "Histoire des Maires de Tours," speaks of these tapestries as having been made by Jean Duval, and existing in the Eglise de Saint-Saturnin at Tours in 1780. They were given to that church by a wealthy parishioner, Jacques de Beaune-Semblançay. On the outbreak of the Revolution these beautiful tapestries disappeared, and were thought to

have been destroyed. About forty years ago, however, three of the most important of the series were found in the possession of a second-hand furniture dealer, who sold them to the Chapter of the Angers Cathedral. A little over ten years ago a fourth was discovered in the hands of a dealer in the Rue de Vaugirard, in Paris, and, after figuring in the Tours Exhibition of 1891, was bought by M. Siegfried. It represents St. John preaching before a numerous audience, some seated and others standing, including Saint Saturninus, who is recognizable by his aureole.

But assuredly the most curious tapestries at the Château de Langeais are the series known as the "Neufs Preux." "Preux" is an old French word meaning "hero," and the "Nine Heroes" were Joshua, I avid, Hector, Caesar, Artus, Godefroy de Bouillon, Judas Maccabeus, Alexander, and Charlemagne. Only the first six (and a fragment) of these are represented in the Langeais series. The figure of each hero is accompanied by a quatrain. For instance, the portrait of Julius Caesar bears the following lines:

julius cesar fort renommé je suis
qui le fier pompée ay vaincu et occis
et en mes jours empereur de romme fuz
six centz ans devant que fut ne jesus.*

In the opinion of Mgr. Barbier de Montault, who has written an exhaustive treatise on these tapestries, they were made in La Marche, which possessed two tapestry manufactories in the 16th century. Before coming into the possession of M. Siegfried they were the property of M. Reversé, of Saint-Maixent, who purchased them, together with the Château Chauray, from M. de Surimeau. Nothing more is known of the history of six of the most curious tapestries in existence (See Fig. 14).

In addition to these principal works are a number of fine reproductions of celebrated tapestries, notably one of the Cluny tapestry, known as "La Licorne," a very decorative 15th century fabric,

*"I am the greatly renowned Julius Caesar / who conquered and killed proud Pompey / and I was once Emperor of Rome / six hundred years before Christ was born."

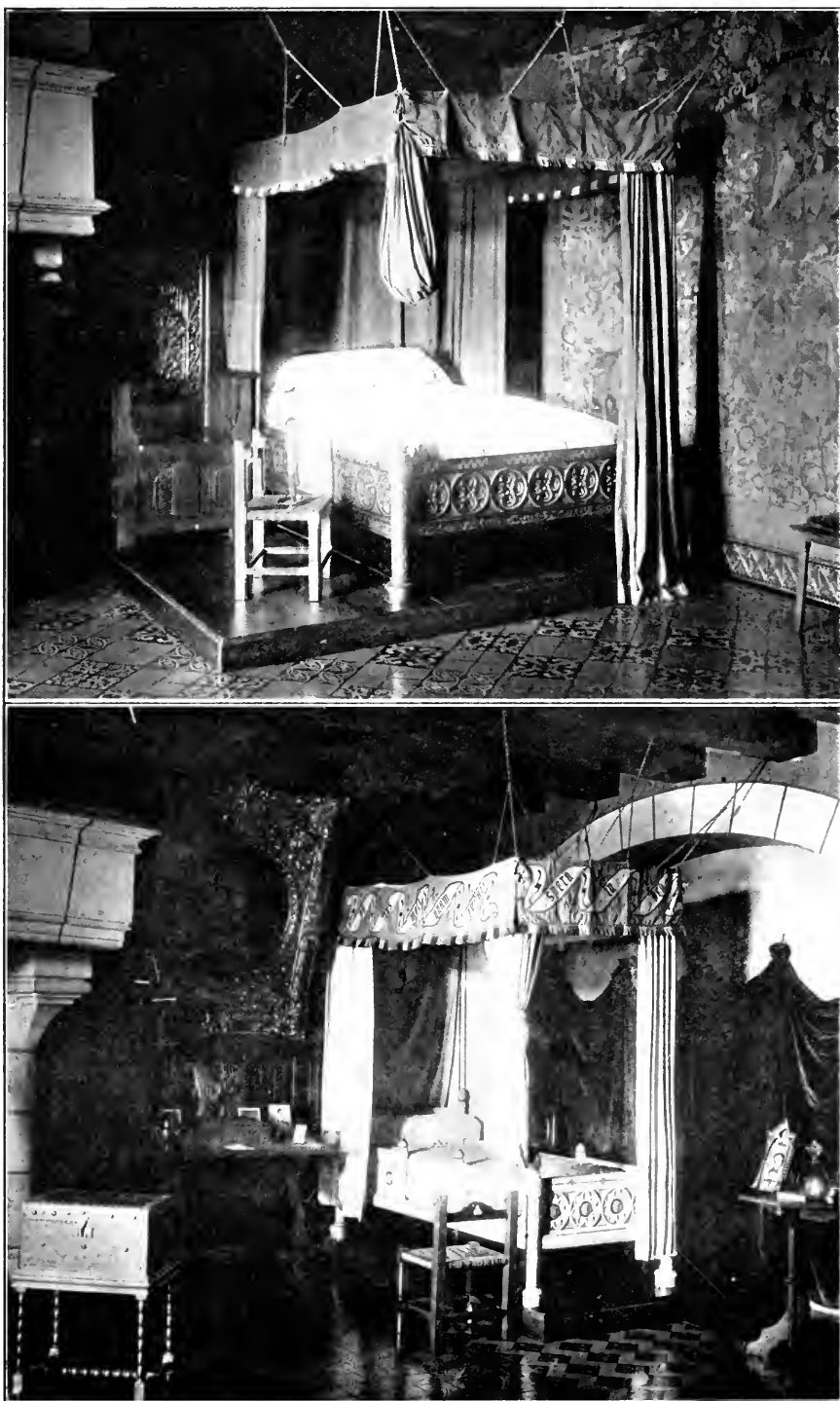


FIG. 17.—TWO 13TH CENTURY BEDSTEADS, COPIED AFTER VIOLET-LE-DUC. Château of Langeais.

without figures ornamented with flowers and Gothic initials; an interesting panel representing "Les Travaux et les Plaisirs des Champs"; another depicting the crucifixion, with Jerusalem in the background; and a fifth, called the "Papisserie des Paons," representing a balustrade with peacocks on a background of Gothic thistles. All of these will repay study well.

Not the least interesting of the multitudinous art treasures which are to be

which still retains its peep-hole (see Fig. 22), are copies from examples in the Cluny Museum. The combined locks and bolts on the inner doors are also scrupulously accurate copies of 15th century models (see Fig. 23). In the Salle de Anne de Bretagne are two admirable candelabra, and on each side of a doorway at the end of the Salle des Gardes, are two Spanish tripod stands, which will also arrest attention. There are several ex-



FIG. 18.—A 15TH CENTURY BEDSTEAD.

Château of Langeais.

seen on every side are the specimens of wrought-iron work. Here, again, the owner of the Château of Langeais has been faithful to the ideal with which he set out when he commenced his work of restoration. The beautiful knockers on the doors in the courtyard have already been mentioned, but I would once more draw attention to them, as well as to the highly decorative bolts with which these fine old doors are studded (see Fig. 20). At the corners of the hexagonal towers in the courtyard are two interesting torch-holders (see Fig. 21); but these, unlike the locks and the bolts on the old prison door,

amples of old locks, two particularly beautiful ones detached, but most of them fixed on ancient pieces of furniture. Finally, a word should be said for the large iron fire-dogs (two were discovered whilst excavations were being made in the château grounds), which support huge logs of wood in the broad fireplaces. How they carry us back to feudal times! But, in fact, the stamp of ancient days is on everything in this wonderful château, and he who, walking through these rooms with timbered ceilings, or sitting in their quaint stone window seats, could not transport himself for a time

to the days of Anne of Brittany would indeed be a person of little imagination.

III.

Touraine is as rich in historic interest as it is in natural beauties. The House of Valois had a special liking for the banks of the Loire, and the great nobles of their court built near the royal residences their own châteaux—marvels of architectural grace, strength, and beauty, but of which there is not a stone that is not cemented with blood. For the Valois lived in an atmosphere of intrigue, fraud and violence. They were always being conspired against, and they met plot with counter-plot; if treason could not be met with force, a sudden surprise, or a stab in the dark, or the malignant skill of some Italian chemist, laid to rest for ever suspicions which might have been unfounded. It is but fair to state, however, that this was not often the case, for the nobles were turbulent and ambitious, and when not engaged in waging war openly or covertly with their sovereign, quarrelled amongst themselves, and led forth their retainers to surprise or besiege a neighboring castle. On the battlement of every donjon there was a watchman, day and night, ever on the look-out for the glint of arms in the valley below; and ready to his hand was a huge horn, one blast of which would alarm the garrison and bring them to the walls. A few feet below the watchman, there dangled from a jutting beam the corpse of some poor wretch, and in the loathsome dungeons beneath the moat others were chained to the reeking walls, for every castellan had the right of administering "greater and lesser justice," and could dispose of the lives and liberties of his vassals as he deemed fit. He had other privileges also, some of which make us wonder why the Revolution did not come some centuries earlier.

These splendid castles, which adorn the fairest portion of one of the most beautiful countries in the world, have beheld some of the most terrible tragedies that history has recorded—events

so horrible that no modern writer would have dared to invent them to spice the most blood-curdling of dime novels. On the other hand, we must remember that they have also witnessed many instances of heroism, self-devotion, magnanimity, altruism, and the other virtues which go to make up that strange medley, Man.

From the historical point of view, Langeais is not the most interesting of the châteaux of Touraine. In searching over its records, we come across no tragedy which leaves an ineffaceable blot on the memory of its former owners, and no noble story which redounds greatly to their credit. Prisoners have pined to death within its walls, as many curious inscriptions prove, and, no doubt, in its early days, when Louis XI. reigned, the ghastly ornament of a pendant figure often swung from the top of its towers, but prisoners and victims were men of small account, whose names and deeds, or misdeeds, the chronicles do not trouble to narrate. The most memorable event associated with the Château of Langeais is the marriage of Charles VIII. to Anne of Brittany, but there have not been wanting other and more dramatic, if less important, episodes in the history of the Châteaux of Langeais.

I use the plural number, for the present structure had one, or perhaps two, predecessors. In the grounds, as has already been stated, may still be seen a couple of ruined walls, which are all that are left of the original castle constructed by Count Fulk of Anjou, appropriately called Fulk the Black. There is a pen portrait in the pages of J. R. Green's "History of the English People" which is one of the most graphic pages in the historian's great work. "Fulk Nerra, Fulk the Black," he writes, "is the greatest of the Angevins, the first in whom we can trace the marked type of character, which their house was to preserve with a fatal constancy through two hundred years. He was without natural affection. In his youth he burnt a wife at the stake, and legend told how he led her to her doom decked out in her gayest attire. In his old age he waged his bitterest war against his son, and exact-



FIG. 19.—COPIES OF FIFTEENTH CENTURY BABY-CHAIRS.
Château of Langeais.

ed from him, when vanquished, a humiliation which men reserved for the deadliest of their foes. 'You are conquered, you are conquered!' shouted the old man in fierce exultation, as Geoffrey, bridled and saddled like a beast of burden, crawled for pardon to his father's feet. In Fulk first appeared the low type of superstition which startled even the superstitious ages of the early Plantagenets. Robber as he was of church

lands. He secured the terrified friendship of the French King by despatching twelve assassins to cut down before his eyes the minister who had troubled it. Familiar as the age was with treason and rapine and blood, it recoiled from the cool cynicism of his crimes, and believed the wrath of Heaven to have been revealed against the union of the worst



FIG. 20.—ANCIENT DOORWAY IN THE COURTYARD, SHOWING WROUGHT-IRON KNOCKER. Château of Langeais.

lands, and contemptuous of ecclesiastical censures, the fear of the judgment drove Fulk to the Holy Sepulchre. Barefoot, and with the strokes of the scourge falling heavily on his shoulders, the Count had himself dragged by a halter through the streets of Jerusalem, and courted the doom of martyrdom by his wild outcries of penitence. He rewarded the fidelity of Hubert of Le Mans, whose aid saved him from utter ruin, by entrapping him into captivity and robbing him of his

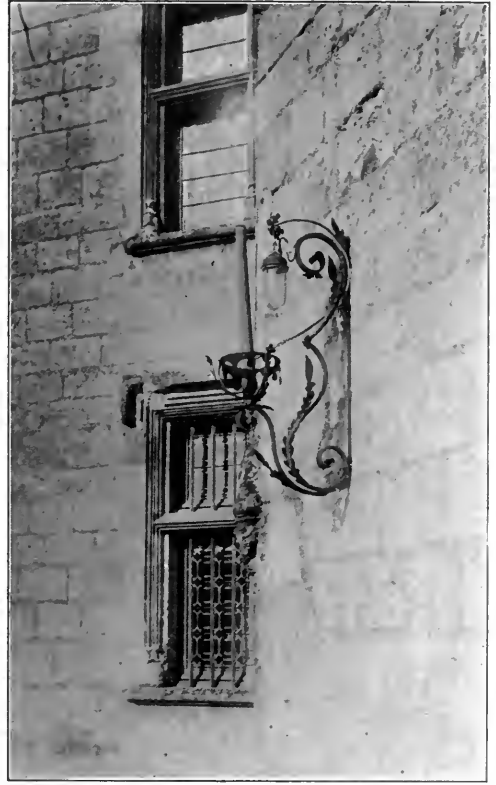


FIG. 21.—TORCH-HOLDER IN THE COURTYARD. Château of Langeais.

forms of evil in Fulk the Black. But neither the wrath of Heaven nor the curses of men broke with a single mishap the fifty years of his success. Cool-headed, clear-sighted, quick to resolve, quicker to strike, Fulk's career was one long series of victories over his rivals. He was a consummate general, and he had the gift of personal bravery which was denied to some of his greatest descendants. To these qualities of the warrior he added a power of political or-



FIG. 22.—ANCIENT LOCKS, BOLTS AND PEEP-HOLE IN THE PRISON DOOR. Château of Langeais.

ganization, a capacity for far-reaching combinations, a faculty of statesmanship, which became the heritage of the Angevins, and lifted them as high above the intellectual level of the rulers of their time as their shameless wickedness degraded them below the level of man."

Having overthrown the Bretons, Fulk next turned his attention to Touraine, and won it bit by bit, till only Tours stood out against him. The Château of Langeais was built to command the road from Tours to Angers, the principal means of communication between the west and the centre of France, and he showed himself a master of strategy in choosing the right spot. Twice he got possession of Tours, once by winning it in a pitched battle, and once as a gift from another wandering robber-chief who had taken the city and was unable

to keep it, but each time the inhabitants showed a preference for their old ruler, Eudes, Count of Blois; and Fulk was obliged to retire to Langeais, where Eudes, who had obtained the assistance of Gelduin, surnamed "The Devil of Saumur," besieged him.

Authorities differ as to the result of this siege, some holding that Fulk, having obtained the friendship of the King of France, by the rather original method mentioned by Mr. Green, received reinforcements and drove back his enemies. Others declare that, as the castle was shortly afterwards in the possession of the Count of Blois, Fulk must have been driven out. It is not improbable that he turned his attention to some other quarter, in which conquest was easier.

Old Fulk died at Metz, and his son regained possession of Langeais and other parts of Touraine, which remained in the family for two or three generations.

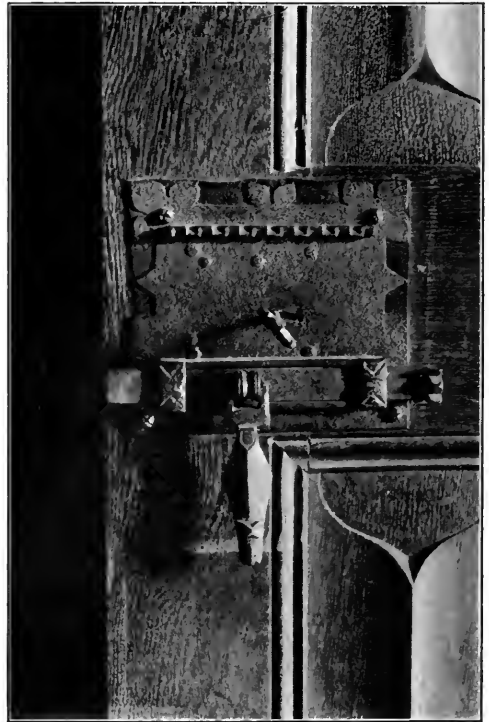


FIG. 23.—ONE OF THE COMBINED LOCKS AND BOLTS FITTED TO THE INNER DOORS OF THE CHATEAU OF LAN-GEAIS.

The castle changed hands several times, and was later the property of Richard Coeur de Lion, who probably never visited it. After his death it belonged to the unfortunate Prince Arthur. He gave it to one of his friends, André de Vitré. When the Prince was murdered, the King of France confiscated all the property which King John had tried to seize, but André de Vitré received compensation, and was given another estate. Strange to say, though John Lackland was deprived of Langeais, it came back to his widow, Isabelle of Angoulême, who married Hugh X. of Lusignan, and the castle was presented to them to indemnify her for the loss of her estates in England.

Langeais changed hands several more times before it was given by Louis IX. to Pierre de la Brosse. Up to that time, Fulk's tower had been more of a fort than a place of residence, but the new owner considerably enlarged and improved it. In fact, he is credited in some guide-books with the construction of the present château; but that is obviously an error. He seems to have been a pushing, energetic man, and though of low birth rose from barber-surgeon to the King to be Prime Minister. His fall was more rapid than his rise, and sufficiently dramatic, especially as he was one of the principal founders of Langeais, to deserve some mention.

His low birth, and the extraordinary favor he enjoyed, excited the jealousy of the nobility, who plotted his downfall. Philip the Hardy had married a second wife, Mari. of Brabant, and the young queen appears to have taken a cordial dislike to the minister. She and her friends accused him to the king of holding treasonable intercourse with the King of Castile, who was then at war with France. Philip paid little heed to the accusation, but Pierre de la Brosse did, and waited for an opportunity to lodge a counter-complaint. The King's son, by his first wife, died shortly afterwards, and Pierre de la Brosse dropped a hint that the Queen might have poisoned her stepson. This was quite in accordance with the spirit of the times, and so also was the means which the

King took to discover the Queen's guilt or innocence.

In a nunnery, in a distant part of France, there was a nun who was supposed to possess the gift of prophecy; and two eavoyes—one of whom was a relative, and the other a friend of de la Brosse—were sent to lay the matter before her, and ask her opinion. It was said that they tried to bribe the nun to proclaim the queen guilty, but she was too clever to imperil her professional reputation as a soothsayer, so replied in one of those ambiguous phrases which have been favored by all oracles since the days of Delphi. The King read it as a proof of the Queen's innocence, and remembering the former charge against Pierre de la Brosse, condemned him to death. He was hanged at Montfauçon, outside Paris, on June 30th, 1278. Taking all the circumstances into consideration, it does not seem that he was particularly deserving of sympathy, as the terrible charge he brought against the Queen was probably false, and, had it been believed, she would in all likelihood have been put to death. On the other hand, it is doubtful if Pierre was a traitor. It was just a game of chance, or skill, with a human life for the stake.

There is nothing particular to record concerning Langeais during the next 150 years. It continued to have an ever-changing series of proprietors, one of whom was an English knight, Sir Thomas Stone, who married a French widow, Isabelle of Goyon. She survived him and married a third time. The castle was also taken by the English, who held it until they were driven out by Joan of Arc.

The country settled down during the reign of Charles VII., and great changes were effected at Langeais and elsewhere in the reign of his successor, Louis XI. Like Fulk the Black, the new King was a good strategist, and saw the value of the position of Langeais, and that a strong castle there, held by a retainer in whom he could trust implicitly, would, in a great measure, protect him from all attacks coming from the west, when he was in Touraine.

In the reign of Charles VIII., the son

of Louis XI., the Château of Langeais witnessed the most important historical event which had ever occurred within its walls—the marriage of the King of France to Anne of Brittany. The father of this princess, the Duke of Brittany, had no sons, and left his rich duchy, which was then independent, to his daughter Anne, who was a mere child at the time of his death. As the duchy was a very rich possession, and was coveted by several kings and ambitious nobles, and as a marriage was far less troublesome, expensive, and uncertain than a war with the brave and hardy Bretons, her hand was sought for by many suitors, and it is, perhaps, not surprising that she was twice betrothed and twice married—but not to the suitors to whom she was “engaged”—before she had completed her fifteenth year.

Of the betrothals I have not space to speak. They were promises wrung from her father during his last illness, and Anne, who was a very shrewd and sensible young woman, did not feel herself bound to perform them, for she had a great dislike to one lover, and reasonably expected that she might do better than marry the other. The only promise to her father that she thought herself bound to fulfil was to preserve the Duchy, if possible, and Brittany had been so weakened by constant warfare with the French that her only hope lay in an alliance either with the French King, or with one of his enemies who was powerful enough to protect her against him.

But Charles VIII. was almost as good as married, for he was betrothed to a child of seven or eight, and though the marriage could not take place for some years his prospective father-in-law was strong enough to make him keep his word. The child was the daughter of Maximilian I., the German Emperor. There had been war between Maximilian and Louis XI., and though Maximilian had been successful in the field, he was no match for Louis in cunning and intrigue, and had been induced by the French king to betroth his daughter Margaret, a child of four years, to the

Dauphin, and to give Artois, Flanders, and the Duchy of Burgundy as her dowry.

The only suitable husband for Anne appeared to be Maximilian. He was nearly middle-aged and a widower, and his daughter was not much younger than Anne herself; but he was powerful, chivalrous, and cultured, a poet, and the author of several works on gardening, architecture, and hunting. He was by no means indisposed to take a young and pretty wife who would bring him a rich dowry, but he was far too occupied in making war to be able to spare the time to do any courting, or even to attend his own marriage. He therefore sent an ambassador, who was married to Anne in his name.

The marriage had to be kept secret, for the real ruler of France was Anne of Beaujeu, the sister of the King, and a worthy daughter of Louis XI., who was hardly, if at all, inferior to her father in cunning and intrigue; and who was not likely to view with satisfaction a powerful enemy to France established so close to its borders. As a matter of course, the news of the marriage soon leaked out, and Anne of Beaujeu at once stirred up her brother to declare war against Brittany. The excuse made was that the late Duke of Brittany—who seems to have been somewhat liberal in death-bed promises—had engaged, only a few days before his death, not to marry his daughter without the consent of the King of France.

Charles laid siege to Rennes, but a siege was a long undertaking in those days, and his sister, who was never happy unless she was conducting some intrigue, had the happy idea of breaking the agreement with Maximilian, sending his daughter back to him, and arranging a marriage between her brother and the heiress of Brittany. With the aid of Dunois, she contrived a meeting between Charles and Anne, and they presumably came to terms, for Charles at once raised the siege, and retired to Langeais, where Anne shortly joined him.

She came attended by a few faithful retainers, but her retinue, if small, was



FIG. 24.—KING CHARLES VIII.
From an Engraving by Jacques de Bil.

magnificent, and she rode through the streets of Langeais, the cynosure of wondering eyes, in a "travelling-dress of cloth and velvet, trimmed with a hundred and thirty-nine sable skins," and on a palfrey adorned with three ells of crimson velvet. She was pretty—or at least had the beauty of youth—and Brantôme describes the black eyes and well-marked eyebrows, long black hair, fresh complexion, and dimpled chin, and the only defect he noticed was that one leg was a trifle shorter than the other, which he is careful to add is hardly a defect at all, for it was also the case with many "beauteous and virtuous dames" with whom he was acquainted.

The dress which she wore at the wedding ceremony the next day displayed a rare magnificence, for the States General of her Duchy had granted her a large sum of money. It was made of cloth of gold, embroidered with gold, and cost, at the present value of money, \$24,300. She gave velvet dresses to all the ladies and gentlemen of her household, that of Madame de Laval being of violet velvet, and a costume of cloth of gold to the Prince of Orange.

The ceremony, which, as I have already said, took place in the hall of the Château of Langeais known as the Salle de Anne de Bretagne, was performed by the Bishop of Angers and the Bishop of Alby, brother of Cardinal d'Amboise, who was afterwards minister to Louis XII., and who has left a name in history. The bridegroom, who was then in his twentieth year, was "short, sickly-looking, and extremely thin," but nevertheless had a "handsome, gentle, and agreeable face." Amongst those present were the Duke of Orleans, afterwards Louis XII., and Anne's second husband—(or third, if the simulacrum of a marriage to Maximilian is counted)—Prince of Orange, Duke of Bourbon, Count of Angoulême, Count of Vendôme, Count de Foy, and Guillaume de Rochefort. The date of the marriage was December, 1491, but historians are not quite agreed as to the day, which was probably the 13th of the month.

Whether this was an unlucky day, or whether, as Brantôme thinks, the mar-

riage with Maximilian was really binding, and ought not to have been dissolved or ignored in this off-hand fashion, the union of Charles and Anne was not fortunate. All her children died young, and she was left a widow in less than seven years. Dunois, who was one of the principal parties in arranging the match, fell dead from his horse in a fit of apoplexy, a few months after the wedding. On the other hand, there is an important set-off against these personal troubles in the fact that Brittany became henceforth a part of France, and an end was put to the wars which had long devastated both countries. A singular clause in the marriage contract provided that, if Charles died young, leaving no son, Anne was to wed his successor, and in accordance with that arrangement, she married Louis XII., and had several children. Her subsequent history, however, does not here concern us, and we will return to the Château of Langeais.

Ten days after the wedding, Charles and his young bride left the castle and went to Tours, where they were received by all the city officials in their state robes. After the usual addresses of welcome had been read, Anne entered the city under a dais carried by four "notables." She received an enthusiastic welcome from the townspeople, and the Mayor had considerably provided—for the weather was cold—hot hippocras spiced with cinnamon, cloves, and ginger for the Court, and the common people had the usual delights of fountains running with wine—to say nothing of "mystery plays" performed in the public places.

When the portcullis closed behind the last soldier who brought up the rear of the procession, it closed also on the glory of the Château of Langeais. It had reached its zenith, and henceforth was doomed to decline; but at least it was destined (if tradition can be credited) to receive one guest whose name will be remembered when the kings and nobles who strutted for a brief hour in the halls of Langeais have been forgotten.

Among the many tenants of Langeais



FIG. 25.—ANNE OF BRITTANY.
 From an Engraving by Jacques de Bil.

in the 15th century was a certain Du Bellay, who is believed to have been Cardinal Du Bellay, and, if so, the rafters of the old castle must often have rung with the Homeric laughter which greeted the quips and sallies of that strange genius—a humorist grafted on a moralist, three-fifths buffoon and two-fifths sage—Francis Rabelais. It is true that some assert that Du Bellay did not live at Langeais, but at Langey, in the department of Eure et Loire, but, on the other hand, there is an old house in Langeais, close to the castle walls, which is still known as “Rabelais’ House,” and it is difficult to see why it acquired that name if the great satirist never inhabited it. A legend so comparatively ancient can hardly have sprung from no foundation; and besides, Langeais is in Rabelais’ favorite district, near his birth-place, and close to the town he loved so well, Chinon. On the whole, it does not much matter, so long as we have Gargantua and Panurge; but it is pleasant to imagine that Francis Rabelais once walked through these quiet village streets, exchanging repartees with the local wit, chucking pretty girls under the chin, quaffing huge draughts of wine with any chance traveler at the inn, and bringing everywhere with him that breezy, rollicking spirit of fun and good

humor, dashed with common sense, which pervades his books!

Many other memories of Langeais and its castle could be recalled if only space permitted, but the foregoing must suffice.

Let me say, in conclusion, that the visitor to this fine old castle is under a deep debt of gratitude to its present owner for the magnificent manner in which he has restored it; for its splendid decorations and furniture undoubtedly largely contribute to our evocation of the past. But the restoration of the château and its presentation to the Institute are not the only things for which he deserves credit. M. Siegfried has not only presented this fine château, he has deposited in the hands of trustees a sum sufficient to produce an income of \$2,000 to pay for repairs, and other expenses, as well as a lump sum of \$20,000 to provide for any expenses incurred in connection with the arrangement of the contents of the castle, and the admission of the public, etc. Money is no great matter to him, for he is a rich man, but there are few collectors who would care to sacrifice a private hobby to a public good, and M. Siegfried’s name deserves to be remembered as long as the castle’s walls frown down upon the sunlit waters of the Loire.

Frederic Lees.



TROUGH IN THE COURTYARD.

Brought to the Château of Langeais from Carrara by M. Jacques de Siegfried.

The New Hall of Records.

Or, rather, why "new"? For the old Hall of Records, so-called, was not in the least worthy to be so-called. Nothing could have been more absurd, or more calculated to bring the whole demand for the preservation of our antiquities, such as they are, into disrepute than the clamor which arose from certain sentimentalists, for the preservation of that entirely ridiculous object, a plastered sham with a plastered colonnade, of no merit whatever, which had been, moreover, filled up to make more room. The verdict of the judicious and the aesthetic, when it was decided to demolish the absurdity, was "a good riddance to bad rubbish." And the maudlin sentimentalizers had really nothing to say for themselves excepting that the cellars of the old place had some historic interest as having once been a set of dungeons, and having incidentally served as a political prison in the time of the Revolution, which the actual superstructure much post-dated. That is not exactly a reason for perpetuating a nuisance which is also an eyesore.

About the actual and only Hall of Records, it is, in the first place, odd that, after all the Parisianization of our street architecture which has been going on since the first missionary from the Beaux Arts returned to convert his fellow natives, and practice his art "in partibus infidelium," the most Parisian thing in New York should be the product of an architect who was not of that school or propaganda at all, nor indeed of any other. Perhaps "the most Parisian thing in New York" is an exaggeration, or at least an ambiguity. Paris, architecturally, is a noun of multitude, signifying many. From Notre Dame to the Tour Eiffel or the Palais de l'Industrie is a far cry. But, when one comes to think of Paris, from the composite image which the word calls up, is not that which first detaches itself the broad, solid, ornate palaces, of an ample scale, which have been reared to accommodate

the communal activities of the state or of the city? Specifically, and perhaps most of all, is it not the palaces that confront the Place de la Concorde, with their high arcaded basements, their superposed orders extending through two stories, and their pedimented wings, the whole fronts bearing that unmistakable stamp of style and stateliness which is so eminently what we mean when we say Parisian? It is these qualities that have made the buildings of Paris in general, and these masterpieces of Gabriel in the early eighteenth century and the reign of Louis XV., in particular, the models of so much of the European and extra-European architecture, of which so comparatively little is worthy of the model. The palaces of Gabriel, occupied now, the one as the Ministry of Marine, and the other as the club of the Rue Royale, are the most typical of the secular work of the later Ludovician period, as the Nouvel Opera is the most typical of the Second Empire.

It is this particular effect that the Hall of Records comes nearer than any other public building in New York to recalling. Very few American architects, it will be agreed, have come so near to recalling it, not to say rivaling it, as the architect of the Hall of Records has come, in spite of his difficulties and his limitations. The works of the Greek revival of the "thirties" and "forties" of the last century, including Isaiah Rogers's Merchants' Exchange, now fulfilling the term of its provisional service as a custom house, and Seth Geer's Colonnade Row in Lafayette place, now doomed to demolition, are of a simpler and more primitive inspiration. If they have any Parisian prototype, that prototype is the Bourse, which is one of the chief monuments of the First Empire. It is by its resemblance, a resemblance rather of spirit than of detail, to such edifices as the Hotel de Ville and the hotels of the Place de la Concorde that this latest ex-



THE NEW "HALL OF RECORDS."
Chambers and Centre Streets, New York City. The late J. R. Thomas, Architect.

ample of the municipal architecture of New York becomes the most accurate representative that New York possesses of the Parisian "official style."

It is odd, as we were just saying, that this distinction should be attained by the work of an architect who had not a trace of the French official instruction, which is commonly supposed to be indispensable for the attainment of that particular result. In fact, the late Mr. J. R. Thomas was so much a self-taught architect that, if he had not been a considerable man, his natural destiny would seem to have been that of an "architect." Coming to New York from "up the State" where his buildings, specialized in the direction of prisons and reformatories, were more conspicuous and creditable as examples of the practical adaptation of means to ends than for any strictly architectural qualities they possessed, he contrived, in the decade or so of life and practice that remained to him, to make a considerable mark in the architectural activities of the city. He began by winning a remarkable number of open competitions, especially for churches, the best of which were the rather flat and, so to say, hide-bound but nevertheless dignified and impressive, Gothic Baptist church in Fifty-seventh street, between Sixth and Seventh avenues, and a spirited and picturesque Methodist "auditorium church" of brick in upper Seventh avenue, of which the custodians have done what in them lay to spoil its exterior effect by painting it. But his chief successes were in the armories which he designed for the city, that of the Seventy-first Regiment in lower Park avenue, in stone work, since destroyed by fire and now rebuilding under an entirely different inspiration, and the much better armory of the Eighth in upper Park avenue, which remains, with its conforming addition in the armory of Squadron A, distinctly the most successful example of military architecture the city possesses; and it possesses so many, done by designers of repute, that the achievement may safely be assumed to be considerable. It is one of the most effective buildings in its kind that we have to show. But the kind is as different as possible from the official

style of Paris or of any other capital, being simply an effective composition in free architecture, which, by its thick round twin towers, reminded a traveled observer of the Castle of San Angelo, of which the designer had never happened even to hear.

The manner of Mr. Thomas's appearance as an expositor of the French official style was, in the consecrated phrase, equally creditable to all parties. There had been a competition for a new City Hall in City Hall Park, under the authorization, or the pretence, of extending the old City Hall, as nearly as we can remember. To this competition Mr. Thomas contributed a design, of which the general manner and some of the particular features are perpetuated in the Hall of Records, and which may roughly be described as an Americanization of the old Hotel de Ville of Paris, being also tremendously mansarded. Doubtless there were a considerable number of the pupils of the French school in the competition. But the fact nevertheless was that the expert judges of the competition, if we do not misremember, Professor Ware, the late Richard M. Hunt and the late Edward H. Kendall, gave the first prize, without hesitation, to the architect who had been his own schoolmaster in the "style officiel." Thereupon, however, the municipal aesthetes arose in their might and procured at Albany the passage of an act forbidding the proposed desecration of the City Hall Park, and thus withdrew the ground from under the premiated and accepted design. Thereupon, again, the good Mayor Strong, when the question of a new, or a, Hall of Records came up, reminded his Board of Estimate that the prize winner deserved some consolation for a failure that had occurred by no fault of his own, and proposed that he should be appointed outright architect of the authorized new building. And this was done, subject only to the report of a specially appointed new commission of assumed architectural experts on the architectural merits of the new plan. It was, as it has turned out, as good a solution of the problem as could have been devised. The commission was not for

nothing. Mr. Thomas's original design carried the colonnade of the Chambers street front across the curtain walls, with an effect of huddle, considering the extent of the front and the projection of the centre, that would have been injurious to its dignity, if not destructive of it, but he was persuaded, by his imposed advisers, to suppress this continuation, and also to give more importance to the entrance than he had originally proposed, doubtless to the benefit of the result. Upon the subordinate Centre street facade, which, unlike the principal front, made no pretence of a triple subdivision, the colonnade was extended along the whole front, and the central stoop, which had been a feature of the original design, was subordinated very nearly to the extent of being effaced.

We have described the building as a reproduction, so far as the conditions allowed, of the effect of those palaces of the Place de la Concorde, meaning of the expanse, of the ornateness, of the stateliness of those famous palaces, and by no means meaning a reproduction of their composition, much less of the detail. The real problem, as the architect saw it, was to get some of the effect of a three-story building of ample frontage into a seven-story building of less frontage. A seven-story building, when Gabriel built, was out of the practical purview of an architect. It is well settled that three stories are the maximum that can be accommodated with dignity and five stories the maximum that can be accommodated at all by the unassisted human powers of ascension. The elevator has changed all that. In the design of a new public building, at the end of the nineteenth century, and in New York, the architect had a perfect right, in stopping at seven stories, to "stand astonished at his own moderation." Of course, there was more than that in it. The big mansard was a necessity, the attic another necessity, the raising of the basement from one story to two a third necessity. We may add that the raising of the included stories of the order from two to three was a fourth necessity. Mind, we are not pleading that the architect's view of

his problem was the right one. We are only assuming the problem that he assumed, and considering his solution in view of his view. So considering, how little there is to blame, and how much there is to praise. Because, as we have been all along saying, he has reproduced the effect of monuments designed under so much simpler conditions. His basement he has raised from one story to two without intolerably stilting it. His "order" he has made to include three stories instead of two without intolerably stilting that, and even while preserving it as the "feature" of his front. The newspapers, by the way, acclaimed the columns of the order, when they were put in place, as the largest monoliths in New York. The claim is doubtful. Doubtless they are taller than the demolished columns of Lafayette place. But one would like to see a report of actual measurements before admitting that they are taller than the columns of what is still called the Custom House in Wall street, though those include but two stories and these include three. The Chambers street frontage is by no means so ample as the frontage of Gabriel's palaces, and, on the other hand, the height of the modern building is much greater, so that the effect, in comparison, of "spindling" was an effect very difficult to avoid. But in fact the front does not spindle. It was out of the question to flank the colonnade with the pedimented pavilions which flank the masses of the Parisian prototype, equally out of the question to crown the colonnade with only a mild subordinate attic which should render the predominance of the attic more striking. The big "bow wow" attic had to be added and "brazened out." But that the designer of the more difficult modern building has retained so much of the characteristic effect of the older, in spite of these necessary variations, is very distinctly to his credit. Although he has been compelled to exaggerate his basement and exaggerate his attic and shrink his terminal pavilion to a mere pier, and otherwise to compromise with his limitations, not many judges will be disposed to deny that he has done a good thing. And, whatever

may be said specifically of the sculpture of which the architectural motive is to heighten the architectural dispositions, there is no denying that it does fulfil this latter function. The "clocktops" are effective clocktops, effective in placing and scale and relation, whatever we may have afterwards to say about them as sculpture.

And, after all, the most important result and lesson of the Hall of Records is that it determines its own continuation. The architect himself, upon securing the building of it, was heard to exclaim, in his professional way: "This means ten million dollars worth of work." So it does. For it means that the Hall of Records shall constitute one flank of a series of municipal buildings which shall extend from Centre street to Broadway and from Chambers street to Reade. The design of the new building contemplated that, for nobody can help seeing that it is the "wing" of a projected group. The building of the Hall of Records determines the arrangement,

to all persons who have aesthetical perceptions, as it equally determined the clearing of the City Hall Park of all the obstructions to the view of the new series of buildings, the ancient, as we count ancientry, and architecturally venerable old City Hall only excepted. Since the Hall of Records was completed, there have been various propositions for the erection of more "modern" and altitudinous edifices to answer the municipal needs of the greater municipality. But the erection of the Hall of Records, by indicating its own supplement, has led the popular instinct to demand the completion of the scheme, and to frown down and discourage all projects which prevent the completion of the programme thus rendered obvious and inevitable. To provide in this manner for the extension of his own work is the greatest municipal service the architect of the Hall of Records had it in his power to render, even greater than the production of that handsome and dignified edifice, though this latter service is far from insignificant.

Montgomery Schuyler.



MANTELPiece OF ROOKWOOD WARE.



FIG. 1.—THE BATTLE HOUSE AND THE PRESIDENT'S MANSION.
 The house above is the Battle House and was built about 1840. The house below is the mansion of the President of the University of Alabama. Date, 1827.
 Tuscaloosa, Alabama.

The Greek Revival of the Far South.

Tuscaloosa, Alabama.

Perhaps nowhere over the South can be found a town, which more perfectly blends the relics of the old regime with that of the new, than we find here in the quaint old town of Tuscaloosa, with its wide streets and their rows of massive oaks, forming overhead a veritable canopy of verdant green, and lined with houses and grounds roaming about with the true Southern disregard of space. It is a town which to the historian teems with interest of the early days of the state, and it should teem with interest to the architectural student, for here we find a type of house of the Southern variety, which in many ways is superior to the other multitude of charming old buildings that deluged the Black Belt and the South in general with their white be-columned porticos in the early part of the past century. In studying these old buildings we cannot fail to be interested in their histories and their romances.

The town of Tuscaloosa was founded in 1816 on a high plateau on the banks of the Black Warrior River, at a point where the foot hills of the Appalachian Mountains emerge into the flat country which only a few miles from Tuscaloosa again emerges into the black-soiled prairie of the so-called Black Belt. The little settlement made in 1816 grew rapidly and in 1819 it was laid out in streets and chartered as a city. Continuing to grow in size and importance, it was chosen in 1826 as the capital of the state, to supersede Cahawba which had grown uninhabitable on account of its malaria. In 1826 it was also chosen as the site for the state university which, in 1831, opened its doors to the youth of the state as an institution of learning.

The town's prosperity and importance continued until 1846 when it received somewhat of a set-back by being superseded as the capital city by Montgomery, a larger and more central town.

Since that time it has not retained the important place in business and governmental affairs that it held in its earlier days.

But the point which really interests one is the high degree of enlightenment its society attained in ante-bellum days—a quality which it retains to this day. Perhaps the reason for this highly developed society in so young a town as Tuscaloosa was the superior class of immigrants attracted by the town's prosperity and importance; and according to all accounts this class of immigrants consisted largely of men of the professions of law and medicine—and these professions were the only honorable ones in ante-bellum days. The association of the executive officers of the state and legislature with the faculty and student body of the university also give us an indication of an unusual social condition. It may also be said that the settlers of this old town are generally known to have come from Virginia and the Carolinas. One old writer who seems a little enthusiastic over the society of that time says: "This class of men was the ruling class of the South—the slave-holding class, which, during ante-bellum days, formed in itself a veritable little aristocracy. From the earliest times the social lines of demarcation were very broadly marked. Old families rich from commerce or planting, at the head of cotton houses or baronial plantations down in the Black Belt with their teeming population of slaves, with their large incomes, opportunity and taste for leisure, luxury and culture, brought home-life here to a degree of polish and elegant exclusiveness that was unsurpassed. Here hospitality ripened into a fine art and never flowered to a more exquisite display than in this old town. The men were honorable, chivalric and thoroughbred. New ideas have since come to towns of this class,

the old baronial civilization is gone; but the fragrance of the old vase lingers."

What delights the student of architecture in Tuscaloosa most is the good detail found in the early-built houses, for in them are found little of the carpenters' version of the orders, and, while many motives are plainly seen to be mere copies from old publications, still the spirit of the designer generally manifests itself.

early as 1840, when this house was built. Another clever piece of stucco work is in the Eddins House on Greensboro Avenue directly opposite the Battle place. In this building the walls are covered with a thick coat of stucco and laid off in blocks in imitation of stone, each block being differentiated from its neighbor by a slight difference of shade in the tinting of cool gray. The massive columns which extend around three



FIG. 2.—ENTRANCE TO THE BATTLE HOUSE.

Tuscaloosa, Alabama.

Date about 1840.

Perhaps the material in which the old builders worked best was plaster stucco. Their admirable use of this as a covering for brickwork indeed delights us. The best piece of work is evidently in the Battle or Friedman House where the front brick wall is covered with this stucco in clever imitation of colored marble, the soft Italian pink and chrome streaked blocks being marked off in white to imitate the pointing of cement. This stucco work of the Battle House is known to be the product of negro mechanics and shows the high point of art-
isanship slaves had been brought to as

sides of the house are of a brick core and covered with this same stucco. Perhaps the cause of the use of stucco here to such a great extent can be traced to the fact that the native-burned brick of that time were of too rough a surface and too unattractive a color to satisfy the æsthetic ideas of their builders. With stucco they could obtain a smooth and even surface which from time to time could be refreshed by light tinted washes. The stucco work in all these buildings in Tuscaloosa has been wonderfully preserved, especially in the Spence and Somerville houses, where

hardly a crack can be found in their broad smooth wall surfaces, and along with this we are pleased with the excellent repair in which the buildings as a whole have been kept. Through the crisis which architecture passed in the period following the Civil War and up to comparatively a few years ago, these buildings have been kept sacred from the hands of the remodeler and the restorer, although the paint brush has been at times used without mercy, as

causes for this outburst of Greek architecture was the need for such portico features. The houses must have shady verandas during the long summer, the glare of the brilliant sunlight must be shut off from the rooms, and at the same time the South breeze from the Gulf must be given the liberty of circulation through the house. This desire for free ventilation is plainly seen in the plans where the wide hall extends down the center of the house, high ceilings being



FIG. 3.—THE SPENCE HOUSE.

Tuscaloosa, Alabama.

Date, 1827.

in some instances capitals and cornices which should be white or cream colored are sometimes found a dull red.

Why the houses of the Greek Revival sprang up so numerous over the South in all their elegance of detail and proportions is an interesting study. And when we consider the men who built them, their classical education, and the great interest taken in Greek literature at the early part of the 19th century, we are convinced that their interest and admiration of Greek civilization was the prime cause for their building such stately porticoed homes. Among the other

used exclusively, and large windows and door openings always made.

There is record of only one architect having practiced in Tuscaloosa during the '20 and '30's, this one being Nichols, an Englishman brought here by the state to erect its capitol and the buildings of the university. As to the other houses here, all so well built and many so well designed—it is quite certain that they are the products of their owners or builders. These well-educated men can be justly classed with builders such as Thomas Jefferson and many others in Virginia, and in the north as



FIG. 5.—THE OLD STATE CAPITOL—1824-26.

Tuscaloosa, Alabama.

Nichols, Architect.



FIG. 6.—THE SNOW HOUSE.

Date, 1830.

Tuscaloosa, Alabama.



FIG. 4.—TWO TUSCALOOSA HOUSES.

The upper house is of brick, with stucco, while the lower is brick. The flutes in the columns are chiseled in the brick. The capitals are of bronze or cast iron, and the hardware throughout is of sterling silver. Date, about 1830.

architectural enthusiasts. Besides being well versed in the classics, they were men of travel; they had seen the buildings of the Greek Revival recently erected in Europe; and naturally they wished to build for themselves homes in this dignified style. And why not? They were men of means, free from the cares of business; slave carpenters and

used Italian Renaissance details, the details of the order used in the large front portico being modeled after parts of Palladio's Basilica at Vicenza. The general scheme for the university buildings was the same as Jefferson used for the University of Virginia, with the exception that Nichols' rotunda was modeled after the Temple of Vesta at Riv-



FIG. 7.—HALL AND STAIRWAY IN THE SNOW HOUSE.
Tuscaloosa, Alabama.

About 1830.

masons could be bought and efficient white foremen could be employed.

As to the buildings built by the architect Nichols, we cannot fail to be pleased with them from an architectural standpoint. His conception of plan and the excellent design of his motives are the things which seem most worthy of commendation. Much of his ornament seems late English Georgian, especially in the exterior of the old capitol while the great majority of his motives are of real Greek origin. Again, in the President's Mansion at the University he has

oli instead of the Panthéon, the model used by Jefferson; and the buildings to either side were not connected by covered ways as the buildings at Virginia were. Unluckily almost all of the university buildings, including the rotunda, were destroyed by fire during the latter part of the Civil War at the hands of a party of Federal troops. The President's mansion was built along with the other university buildings about 1826-28, and has since always been the residence of each succeeding president of the institution. The house is of brick, thick

walled—as were all important Southern houses of that date—the front walls and columns covered with stucco—a cool, gray tint given to the wall surfaces and a light warm yellow to the columns, while the capitals, bases and entablature were painted white. The most interesting feature to the house is the cool sequestered loggia under the main por-

find many Georgian motives in the houses which can be classed as distinctly of the Greek Revival, such things as doorways, stairways. The Foster house is perhaps the best of the wooden-built houses of the late Georgian in Tuscaloosa, although the date of its erection, 1829-31, is rather late for a house of this class. It has a double-storied front por-



FIG. 8.—THE "GOVERNOR'S HOUSE"—SOMERVILLE HOUSE.

Tuscaloosa, Alabama.

Date 1827.

tico—a delightful stone-paved retreat, where one during the heat of the day could find comfort and seclusion. Some very admirably designed wrought-iron work may be found in the balustrade to the portico balcony; and the railings to the ramping entrance steps leading up to the main story on either side of the axis of the house.

Besides the Greek Revival houses in Tuscaloosa we find a number of old homes which are survivors of the Georgian of the two-porch treatment and are almost all built of wood. We can also

tico which suggests "Shirley" on the James River in Virginia. The pilasters at the corners of the house and the entrance door are also distinctly Georgian motives. This house was built by a Dr. Joshua Foster, a well-educated man of that time, who was for a long time a professor in Alabama University. In the drawing-room of the Foster house are some very well done frescoes, a form of decoration very seldom seen in antebellum houses. While the front of this house is Georgian, the rear betrays truly Southern nature, for the wide double-

storied portico with large Doric columns stretches the entire width of the house.

The Stillman house only a few blocks from the Foster place is another survival of this late stage of the Georgian. Its front portico, however, is not so good in proportions and detail as that in the other colonial example.

War which attracted the attention of the people of the South as completely as it did those of the North. During the years between 1850 and 1860 the period of imitative design ran amuck in Tuscaloosa, as well as in other towns in the South. Every style of architecture seems to have been tried, the florid Gothic, the Roman villa, French Louis



FIG. 9.—HOUSE IN TUSCALOOSA, DATING ABOUT 1845.
The front is stucco on brick, painted to imitate pink marble.

As we trace the Greek Revival in the South from its birth, we are strikingly surprised at its short life of perhaps 40 odd years. About 1810 is the time it made its first appearance in this section of the country; and from 1850-55 we begin to see signs of its decay: first in the absence of entasis to the columns, badly modeled and badly designed capitals, columns of bad proportion and the use of fancifully-shaped brackets in the cornices. In 1860 its fall was lost in the maelstrom of the Civil

XV and XVI, and even Moorish arches are sometimes found. Some can be called clever imitations, but on the whole a very lamentable class of buildings.

Perhaps the Eddins house is the most purely Greek in design in Tuscaloosa. Besides the columned portico its front doorway and the ornament over the window lintels are all of Grecian design. This house was built in 1830. The entrance steps to the house lead almost immediately down to the sidewalk, so that much is lost by its not being situated



FIG. 10.—THE FOSTER HOUSE AND THE HAYS OR OZMENT PLACE.
Tuscaloosa, Alabama.

back from the street. To the left of the house can be seen the vestiges of its former garden, which must have made a charming scene in its palmy days. Now the flower beds have been trampled under foot, the hedges have gone untrimmed, and the shrubs and rose bushes sadly neglected, for the tenants of the house of post-bellum times have been more or less indifferent as to its welfare.

No garden in Tuscaloosa or almost anywhere over the South has been better kept, and more closely to its original design, than the one of the Battle or what is now the Friedman home; and it is quite a unique and interesting one. Its surrounding hedges stretch along the Greensboro Avenue side the whole length of the block and down the side streets to points opposite the main house, and behind this barrier the interior is made quite secluded. This surrounding hedge has at places been pierced by openings which allow one to wander to its outer walks from the quaint old garden within. The walks are all of white sand and are constantly kept so fresh as to shine out through the deep luxurious green of its rich shrubbery and its rose bushes. Between the rose bushes and shrubs are found little violet beds rich in their coloring of green and deep purple. From the front garden one wanders to the side lawns and the vegetable garden, for the place is not stinted in the area of land that it covers. This Battle house was built by a Dr. Alfred Battle in 1840. The house itself has many interesting features, the most prominent of which is its portico with the glaring white wood paneled pillars. The capitals and bases of these are without precedent and are, indeed, a novel creation—yet with these grammatical errors they are well proportioned, well spaced, and have an entasis that shows the designer of this old home to have been one of ability.

Strolling farther up the sleepy old thoroughfare of Greensboro Avenue, with its sidewalks shaded by the giant oaks, we catch the sweeping silhouette of the Snow house, a mass of yellow buff stucco with dazzling white columns

against the deep green setting of the live oaks with their covering of vines which have roamed without restraint high up among the spreading branches. The house is of brick with this yellow stucco covering and dates from 1830. It was originally used as a school for girls, but during the '50's it was owned by one Richard McLester, whose descendants still occupy it as a home. The interesting point about its interior is the spiral stairway—quite a unique feature. The peculiar archway in the hall is not a motive which interests us and is supposed to have been added some years after the erection of the main body of the house.

The Governor's mansion or the Somerville house at the end of Broad Street and the Spence residence were both built in 1827 by Mr. Deering, who was a man of much wealth and who was very enthusiastic as a builder. These two houses built by him have many points of similarity, although the Spence house portico is pseudo-peripteral and the portico of the Somerville house is prostyle. The Somerville house is generally known as the Governor's mansion, as it has been of late years supposed to have been the official residence of the Governor of Alabama when Tuscaloosa was the capital city. The fact has recently been disclosed that Governor Collier in the early thirties was the only governor who ever occupied this residence, he being its owner at that time. The stone dogs at the entrance are quite interesting as specimens of sculpture of ante-bellum days and are fairly good pieces of work.

An interesting old relic of slavery days in Tuscaloosa, which is always pointed out to the stranger is the old slave block at the corner of Greensboro Avenue and Broad Street. It is of solid brick masonry and now serves as a sign board.

In the plantation district to the south and west of Tuscaloosa we find few old houses of interest from an architectural standpoint. This is a fact hard to explain as the land was rich and the plantations teemed with slaves, but these rural districts never seemed to be attractive to the ante-bellum gentlemen as places of residence.

J. Robie Kennedy, Jr.

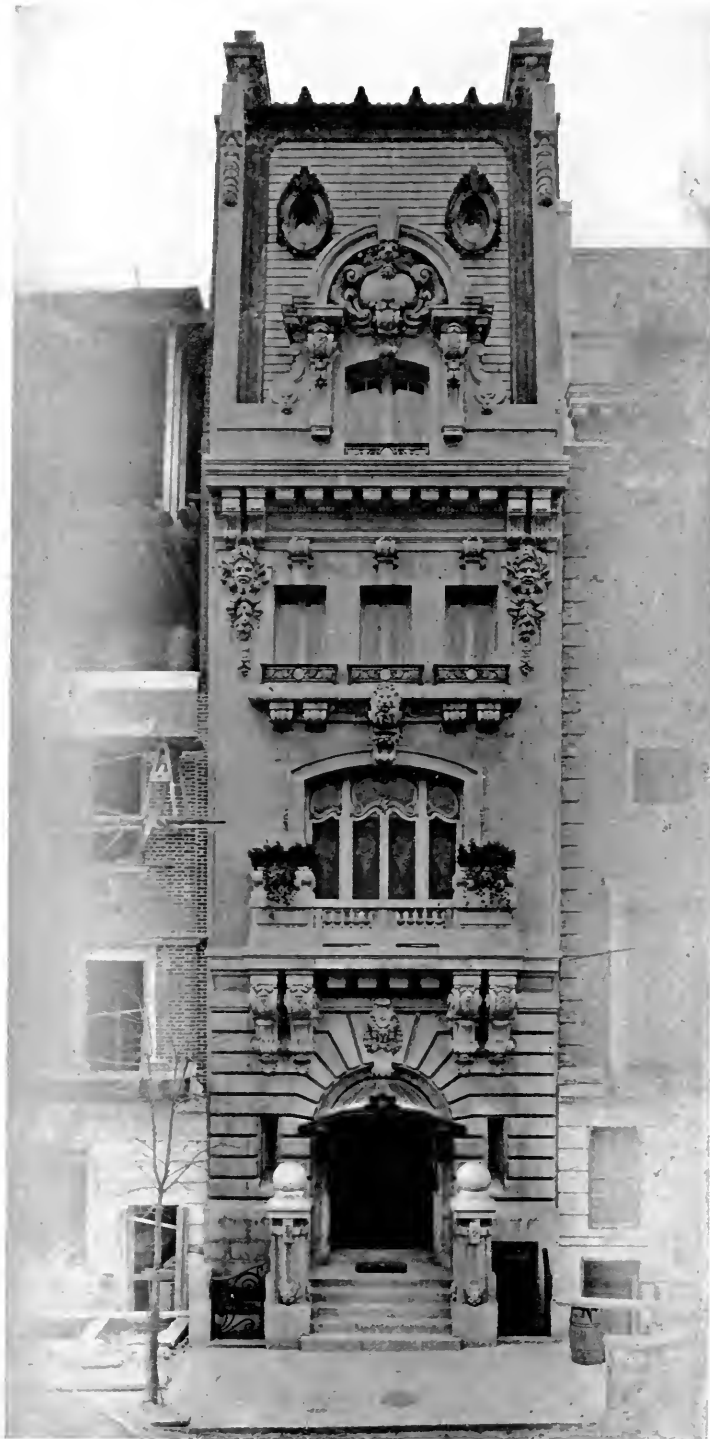


FIG. 1.—THE HOUSE OF MR. M. NEWBORG.
No. 50 East 52d Street, New York City. J. H. Freedlander, Architect.

A New York House of To-day.

The Residence of Mr. M. Newborg. J. H. Freedlander, Architect.

The architect of even handsome and costly dwellings in New York is confronted by extremely difficult problems. Land is so very expensive in the best residential districts that a man who is willing to pay, say, \$100,000 for house and lot is frequently obliged to put up with very inadequate space. In any other city in the world, a sum as large as that would secure a desirable site of ample dimensions and leave at least \$70,000 to be spent upon the house; but in New York, a man who wishes to live in a choice location, and does not wish to pay extravagantly for it, must be satisfied with a lot measuring not more than 25x100, and frequently not even as much as that. The architect, consequently, is obliged to plan a house on a site, which is very narrow and very deep; and he must at the same time so dispose his space that he will afford his client both every convenience and a spacious as well as a handsome architectural appearance.

It was a problem of this kind which confronted Mr. J. H. Freedlander in designing the house of Mr. M. Newborg, which is illustrated herewith. The lot, situated as it is in a very desirable location on East 52d St., measures twenty feet on the street by one hundred feet deep, and on this narrow area, five times as long in one direction as it is in the other, the architect had to plan a house which was to be both good-looking and comfortable. Of course, the necessary room for comfort must be obtained by occupying as much space as possible in every available direction. The house could not be more than twenty feet wide, but it had to be as much as that. It could not be more than 100 feet deep; but with the extension it runs back 93 feet, which makes the back yard nothing more than a court. It could not be more than five stories high, because the

owner did not want an elevator, but the five stories project higher than any other five-storied house in the vicinity. Finally this particular house not only has a basement, but a sub-basement as well, which is unusual in a dwelling of this size. Thus by obtaining as much space as possible in every direction, and by the ingenious management of the space so obtained, the architect has succeeded in designing a residence, which is conveniently planned, fully equipped, comparatively well-lighted and spacious in interior effect.

In designing the façade Mr. Freedlander departed in several important respects from customary arrangements. In spite of the fact that his lot was only twenty feet wide, he was not afraid to make his front almost ten feet higher than the fronts of the neighboring buildings. The proportion, consequently, between the width and the height of his façade was the same as that between a building which is forty feet wide and eleven stories high. The building was by way of being a tower, yet it could not be treated as such and keep its proper domestic effect. The architect was obliged to adopt a scheme, which would serve to make the height of the building less rather than more conspicuous; and this obligation carried with it the necessity of strong horizontal projections, dividing the façade into three members. The usual result of such a division is that the lowest member, consisting of the ground floor, is insignificant in architectural effect compared to the upper members, each of which consists of two stories. But Mr. Freedlander has avoided this difficulty by making his ground floor much higher than is customary, as may be seen by comparing it with the ground floors of the neighboring buildings. A large part of the extra height is thrown into this division



FIG. 2.—LIBRARY IN THE HOUSE OF MR. M. NEWBORG.
No. 50 East 52d Street, New York City. J. H. Freedlander, Architect.

of the façade, which occupies a place in the composition corresponding to its functional importance. In other respects, also, the architect has managed his design very cleverly. The three members of the façade are distinguished by marked and significant differences of treatment. On the ground floor the rustication of the stone work, the strong arch of the doorway, the stoop with solid posts on either side, and the *marquise*—all these details combined to give the story an individual character appropriate to its special function. In the next division, including the second and third stories, the treatment looks towards a certain grace of effect, which is obtained by the flat masonry, the balconies and windows suggesting handsome interiors, and the motives of the ornament. The upper stories are, of course, treated as a roof with a dormer in the center and with a bull's-eye above on each side. Different, however, as are these three members, they are tied together by the stone frame of the sloping roof, and by the downward droop of the prominent decorative details. The only instance in which Mr. Freedlander has used his detail in a very questionable manner is that of the consoles carrying the lower balcony, which give too much the appearance of being externally applied to the heavily rusticated masonry behind. The whole scheme, however, is extremely compact, considering the ornate character of the design, and is at the same time full of significant detail. The architect is to be congratulated on his careful and skilful disposition of an intractable group of architectural elements.

The unusual height of the first story has enabled Mr. Freedlander to obtain an entrance hallway of extraordinary dimensions. It is hard to believe as one enters this hall, that it has been made in a house, which is only 20 feet wide. This hallway is finished in Caen stone, and is elaborately ornamented—rather too much so to my taste; but it makes a handsome approach to the house. It will be noticed from the illustration that on leaving the entrance hall the visitor mounts four steps to a higher

level, which in turn leads to a stairway, and that the first landing of this stairway gives directly on a room of some importance. This room is the dining-room, the situation of which in this particular place is the peculiar feature and virtue of the plan of the house. It is the height of the first story, which has enabled the architect to raise the level of the dining-room above the level of the entrance hall, and by this means to give it both a good architectural approach and convenient arrangements below. Beneath the hall there is nothing except the boiler-room, but beneath the dining-room are two rooms, one below the other. The first of these rooms is the kitchen, and the second the laundry. In this way the architect has given the housekeeper a spacious kitchen and a spacious laundry both on a 20-foot lot, while between the kitchen and the boiler room he has found an opportunity for a servants' dining and sitting room. Both the kitchen and the laundry are equipped with the best machinery in the way of ranges, refrigerators, clothes-dryers, and the like; and the whole arrangement is an excellent example of ingenious and economical house-planning.

In other respects also the plan is well considered. The house measures seventy-four feet from front to rear, omitting the extension. This area is occupied by spacious rooms back and front, and in the middle by some debatable space, which varies in amount and use on each floor. On the first floor the doubtful area is comparatively small, because the drawing room in front is 35 feet deep, and the library in the rear is 28 feet deep. The hall takes up most of the remaining area, but space is found for the servants' stairway on one side and a small retiring room on the other. The hall is lighted and aired by a court, measuring 4 by 17 feet, which is unusually large for a house of this size in New York. On the floor above, which contains a large bedroom back and front, it is natural that space should be taken from the bigger apartments and devoted to humbler but no less essential purposes. Thus there are two bathrooms, a shower, five or six



FIG. 3.—ENTRANCE HALL IN THE HOUSE OF MR. M. NEWBORG.
No. 50 East 52d Street, New York City.

J. H. Freedlander, Architect.



FIG. 4.—DINING-ROOM IN THE HOUSE OF MR. M. NEWBORG.
No. 50 East 52d Street, New York City.

J. H. Freedlander, Architect.



FIG. 6.—HALLWAY IN THE HOUSE OF MR. M. NEWBORG.
No. 50 East 52d Street, New York City. J. H. Freedlander, Architect.



FIG. 7.—BEDROOMS IN THE HOUSE OF MR. M. NEWBORG.
No. 50 East 52d Street, New York City. J. H. Freedlander, Architect.



FIG. 5.—DRAWING-ROOM IN THE HOUSE OF MR. M. NEWBORG.
No. 50 East 52d Street, New York City.

J. H. Freedlander, Architect.

closets, and the servants' stairway, all tucked into the space between the two rooms, while the extension on this floor naturally becomes a boudoir. On the floor above the area is, of course, still more subdivided. In the rear there is a nursery and in the front a bedroom, the intermediate space containing, besides the usual appurtenances, a large linen-room. The architect has even managed to provide an outdoor playground, for inasmuch as the extension does not run through this story, its roof can be used as a sort of an elevated yard. On the top floor there are not only four servants' bedrooms, but sewing and store rooms besides. Throughout the whole house every inch of space is used, and the housekeeper has not been obliged to forego any facility or comfort, because of the narrow limits of the site.

One peculiarity of the plan, which makes for admirable interior effect, is the octagonal shape of the rear rooms. The corners of the body of the house have been cut off both for the sake of the light and because of the more interesting shape which certain important apartments would thereby obtain. It will be noticed, for instance, that both the dining room and the library are oc-

tagonal in shape, and that this fact has had an important effect upon the design of these rooms. For all the interiors of Mr. Newborg's house are as thoroughly designed as is the exterior. That is the difference between this house and the majority of modern New York houses of the same class. As a usual thing the rooms of these houses are only decorated. In the present instance they have been, as we have said, really designed. More or less appropriate historic styles have not been adapted to the several different apartments; but the purpose has been to make each room look as if it served its purpose, and at the same time look well. In carrying out this idea the mantelpieces, the paneling, the ceiling, the rugs and the furniture are all of the architect's own selection or planning; and in his dispositions he has sought for simplicity as well as propriety. It is all very vigorous work with plenty of depth to the treatment of the surface detail, and the result borrows nothing from upholstery or hangings of any kind. Such is the way in which the interior of houses should be handled, and in this particular instance the architect was as fortunate in his client as the client in the architect.



FIG. 8.—KITCHEN IN THE HOUSE OF MR. M. NEWBORG.

New Dreams for Cities.

There has appeared in the last three or four years a new and exceedingly interesting municipal movement. Its results, which seem very promising, will be watched with the keenest regard. There never has been anything exactly like it before, and its recent rapid spread suggests that its development is destined to go far.

Reference is made to the matter—one may almost say to the custom—of securing expert plans for the physical improvement of cities. This improvement is not designed to be one merely of aspect, though that phase is receiving more and more consideration, but it includes problems of circulation, adaptability, recreation, and site, these involving the greater convenience of the city, the increased effectiveness of its public buildings, a greater economy in the transaction of its business, and enlarged facilities for the pleasure of its citizens.

The improvement has various development. Different places throw the special emphasis on different phases. In New York to-day's demand is the relief of congested street traffic; in Chicago it is the acquirement of an outer park system; in Washington it is the increase of the urban stateliness and beauty. In one place the making of the plans is entrusted to a committee of citizens, in another to an outside commission of experts, in a third to a single recognized authority. In one case the cost of the report is borne by a private association of citizens who have the interests of the community at heart. Elsewhere it is secured at the expense of the business men in the Board of Trade or the Chamber of Commerce. Again, it is paid for by the municipality.

But these variations are matters of detail. The spirit is the same throughout. It is the wish, in sudden apprehension of the physical possibilities of our cities, to realize them more fully,

to make the community worthy of its present, to fit it better for its nobler future. It is the desire to give proof that the community's vision is enlarged, that its ideals are higher, that it no longer lives from hand to mouth, gingerly making petty changes when they cannot be avoided and resignedly putting up with endless inconvenience, as if increasing discomfort rather than greater splendor were the proper lot of growing cities. The nearest semblance to the movement is to be seen in the work that has been done abroad.

The spirit in Europe is similar; but the conditions are different. There the problem is mainly to remake the cities, and, indeed, it has been grasped with a splendid courage. Here it is primarily to plan with wise forethought and a broad outlook for their future growth. Ours is much the easier task, and in the end—because it is the easier and we are left artistically freer—the results should be the finer if our plans be worthy the opportunity. And even in the very heart of our cities, circumstances have left—as study is proving—many precious chances; and it is realization of this fact and the certainty that delay will mean their loss, which is hurrying the movement and giving at once to it so broad a sweep.

Let us examine some of the reports, now made or making, assured that in the emphasis variously placed on different phases of improvement there is no city that will not find some hints which are suited to local conditions.

Necessarily the date that marks the beginning of what may be called the present movement must be chosen a bit arbitrarily. A convenient and proper one would be the appointment of the expert commission to consider the improvement of the city of Washington. This was the spring of 1901, and the commission—of whom not a single member was a resident of the District of Columbia—consists of Daniel H.

Burnham, Frederick Law Olmsted, Charles F. McKim and Augustus St. Gaudens. There is no necessity to speak in a publication of this kind of the work of this commission. Its admirable report is well known to every reader. But the history of its appointment as well as the fact of it has doubtless had much to do with the quick impetus that the movement has gained.

In December of 1900, it will be remembered, there was celebrated in Washington the centennial of the removal of the seat of the national government to that city. In the concentration of the public attention on the significance of this move, and the general looking backward to the first ambitious plans that had been so widely departed from in the hundred years' development, and that yet had evolved a splendid city, it was inevitable that the keynote of the celebration should be the expression of a wish for the improvement of the capital city and of the District of Columbia. It was desired that this be done in a manner and to an extent commensurate with the dignity and resources of the nation. Very opportunely, in order to give definiteness to the wish, the American Institute of Architects happened to be in session in Washington at this time, and I think no one who was there will forget the feeling, that seemed to tingle in the very atmosphere, that we were on the verge of a great step, of a great national opportunity—vague, mysterious, impelling—if we but used sufficient tact and fitly rose to it. The result, after many papers that tentatively put forward various plans, was the appointment of a committee on legislation. This committee held several consultations with the Senate committee on the District, finding in Senator McMillan, the chairman, a staunch friend and ally. In March, 1901, the Senate having authorized its committee to secure expert advice, it asked Messrs. Burnham and Olmsted—at the suggestion of the American Institute—to serve it, and invited them to associate with them in the task such other experts as they desired.

Thus the commission was constituted, with the result that from the outset every city which contained a chapter of the Institute had in it citizens who felt a special, almost paternal, interest in watching the work of the commission. Added to this was the circumstance that each member of the commission had a national reputation, and that Washington is looked upon as representative of the country at large, as having almost as great an interest for the citizens of Maine, California and Florida as for those who live within its borders. The idea of an expert commission to make plans for improving a city could not have had other more prominent and appealing example. The commission went in a body to Europe, which was another somewhat spectacular event; and finally its plan, when announced, commanded the artistic approval of the country, and has stirred the imagination of the people, while touching at least upon almost every problem involved in the improvement of cities. Thus is it reasonable to attribute much of the strength of the present movement to this commission.

Next in point of influence and time came the work in Harrisburg. It was in December, 1900—the very date of the awakening in Washington—that a woman, Miss Myra Lloyd Dock, illustrating her points with lantern slides, fairly shocked the moulders of opinion in Harrisburg, in an address before the Board of Trade, into a realization of the needs and opportunities of the city. Up to that time the city, of some 50,000 inhabitants, had been getting along with a makeshift sewerage system, and one little park of twenty-four acres, and had been drinking polluted and unfiltered water. The newspapers, particularly the "Telegraph," nourished the seeds that Miss Dock had sown. Various suggestions were brought forward, but at last, in May, 1901, J. V. W. Reyners, an engineer resident in Harrisburg, came forward with a proposal that \$5,000 be raised as a fund with which to obtain expert advice and comprehensive improvement plans. The suggestion was so promptly recognized as

good that in ten days the fund had been made up by subscription. The subscribers met and appointed a carefully selected executive committee, to which they added the mayor, the city engineer and one member from each branch of the councils, to secure the plans and look after the spending of the money. Three experts were called to the city's service—James H. Fuertes, of New York; M. R. Sherrerd, of Newark, N. J., both engineers, and Warren H. Manning, a landscape architect, of Boston. The experts made their report in the fall. Mr. Fuertes on the sewerage and filtration problems, Mr. Sherrerd on the paving, Mr. Manning on the park development, and the reports were accepted by the committee and the subscribers to the fund.

To carry out the recommendations, it would be necessary for the city to negotiate a loan of \$1,090,000, and for this permission must be secured by popular vote. The matter was put before the people for their decision in the municipal election of February, 1902. It is not an easy matter to secure the consent of a cosmopolitan population to the extra taxes that a million-dollar loan in a small city involves, and a vigorous campaign was necessary. Those who had subscribed the first \$5,000 came forward with subscriptions of another \$5,000 to pay for a campaign of education. Conducted with skill and earnestness, it ended in a hurrah of enthusiasm such that when the ballots came to be counted it was found that only three precincts in the whole city had given adverse majorities, and of them the largest was of less than a hundred votes. That machine politics, as such, could not have been vitally interested in the loan's success appears from the fact that there was created with it, to expend the money, a Board of Public Works, composed of three prominent citizens of unquestioned probity, and not in active politics nor of one party.

The Harrisburg and Washington experiments, coming together in point of time, make interesting contrasts. The one was the move of a strongly paternal, even autocratic, government in which

the citizens had absolutely no voice. The other was a move by the people themselves, in illustration of how the Washington idea could be taken up and applied by civic democracy. The one put the idea before the cities; the other showed them how it could be availed of by them.

The plans prepared for Harrisburg by the three experts are of a particular rather than general interest, and those on the sewerage, filtration and paving problems are necessarily technical and local. Mr. Manning's park scheme includes a plan for the utilization of the State Capitol grounds and river front as "interior" parks, the establishment of several playgrounds, and the construction of an encircling parkway. This is to be a double road, two hundred feet wide, with a middle strip throughout its length planted with trees and shrubs. This walk and drive, for it will be arranged for both uses, will begin at what is known as the Lochiel Run and will pass through the hollow formed by that pretty winding stream to the almshouse property. There it will turn to the north, and go by Paxtang Cemetery to Reservoir Park. Just beyond the reservoir the road broadens into a large tract, in the center of which will be a huge circular bed of flowers. There will be a fine view from here of the State Capitol and surrounding country. Thence the road descends gradually toward the river, following Paxton creek and passing several noble groups of trees. To prevent floods from the creek, it is proposed to construct a storage basin, in which case the roads will skirt a lake, probably a mile in length, set in woods. The parkway is to reach the river at Otts lane. This brief outline gives an idea of what the plans mean to Harrisburg, and with what concreteness they raise the civic ideal.

While these Washington and Harrisburg movements were under way, the extraordinarily interesting plan to group the public buildings of Cleveland was independently taking definite shape. Though each movement must have greatly encouraged and strengthened

the others, nothing is more remarkable than their widespread concurrence. Locally it is said that the Cleveland scheme was suggested as early as 1898, in a conversation between three men, of whom one was, it should be observed, a newspaper man. That this modest beginning, only seven years ago, of the great work which is now actually in process of accomplishment, can be spoken of as "early" is certainly significant.

Popular sentiment was assiduously cultivated. In 1899 a Municipal Art Society was organized, and the Chamber of Commerce was sufficiently interested to hold public meetings, addressed by well known architects. A postoffice, county court house, city hall and library were to be erected, and there was a prospect that to these would be added an auditorium. It was proposed to bring them all into a single group scheme, that should connect the lake front and the Public Square, and thus, perhaps, bring a new railroad station and the present Chamber of Commerce building into the plan. The proposal was so splendid as to be very alluring. Everybody had ideas. The newspapers found the exploitation of plans a good stock feature, with excellent effect in keeping alive the public interest. The City Hall commission, before selecting a site, actually conferred with those representing the other buildings—a proceeding so extraordinary in American cities that it was clear that something would be doing. The city accordingly went to the legislature for permission, getting its hint from Washington and Harrisburg, to employ three undoubted experts, who should have veto power over the erection, style and character of the public buildings, and who should formulate the plan to be carried out. The permission was obtained, and Daniel H. Burnham, John M. Carrère and Arnold W. Brunner were appointed the Board of Supervision. Their task, the development of a tract only five city blocks in length by two in width—save at the lake front, where it is proposed to improve a width of four blocks—and the addition of a

waterside park, was very concrete and limited compared to the problems that confronted the Washington and Harrisburg commissions. But its purpose was exactly similar—the making of a more beautiful city; and the citizens, in entrusting it to the wisdom, skill and tact of distinguished outside experts, were attacking it as those cities did.

If the problem was concerned with a smaller space, it was perhaps no less difficult, and certainly of no less splendid opportunity. Of the four new public buildings, the design and site of the postoffice was already determined beyond the possibility of change, and the location of a waterside park and playground was fixed by the city's reclaiming of a tract of land from the lake north of the railroad tracks. Thus the plan had to be developed from certain given conditions. On August 1, 1903, the Board of Supervision made its report—which has been very strikingly and stunningly printed.

It developed two schemes—"A" and "B." Scheme "A," which the board termed ideal, made use of the waterside park. But it involved an elimination of the railroad, and was, therefore, designated impracticable, the board throwing all its argument on the side of scheme "B." This, as far as appearances go, ignores the lake and substitutes for a waterfront terminus, a handsome railroad station. To do this in the face of the somewhat vague popular desire to use the lake, required a courage that necessity must have inspired.

In a general way, the board says, the scheme of the group plan consists in placing the postoffice and the proposed library, if it be sufficiently large and important (otherwise the city hall), at the south end of a mall, systematically balancing each other. At the north end of the mall, and on its axis, a monumental railroad station is placed. As to the mall itself, it is hoped to line it with dignified and harmonious architecture. There is to be on each side of it and next to the abutting buildings a roadway for the ordinary traffic approaching them. Two other avenues for general traffic are provided, some-

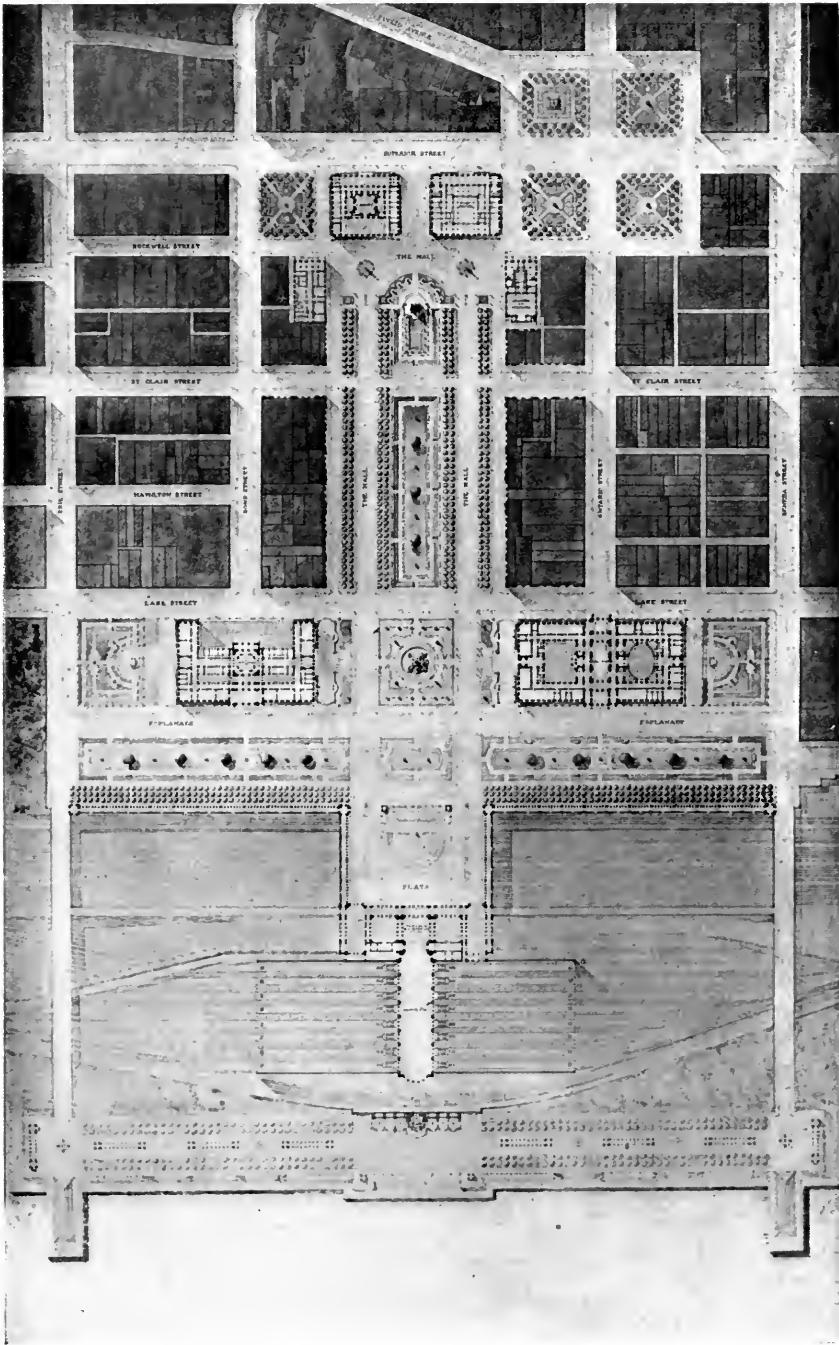


FIG. 2.—SCHEME B. IN THE GROUP PLAN FOR THE PUBLIC BUILDINGS OF CLEVELAND, SHOWING THE TREATMENT OF APPROACHES, PARKWAYS AND PLEASURE GROUNDS.

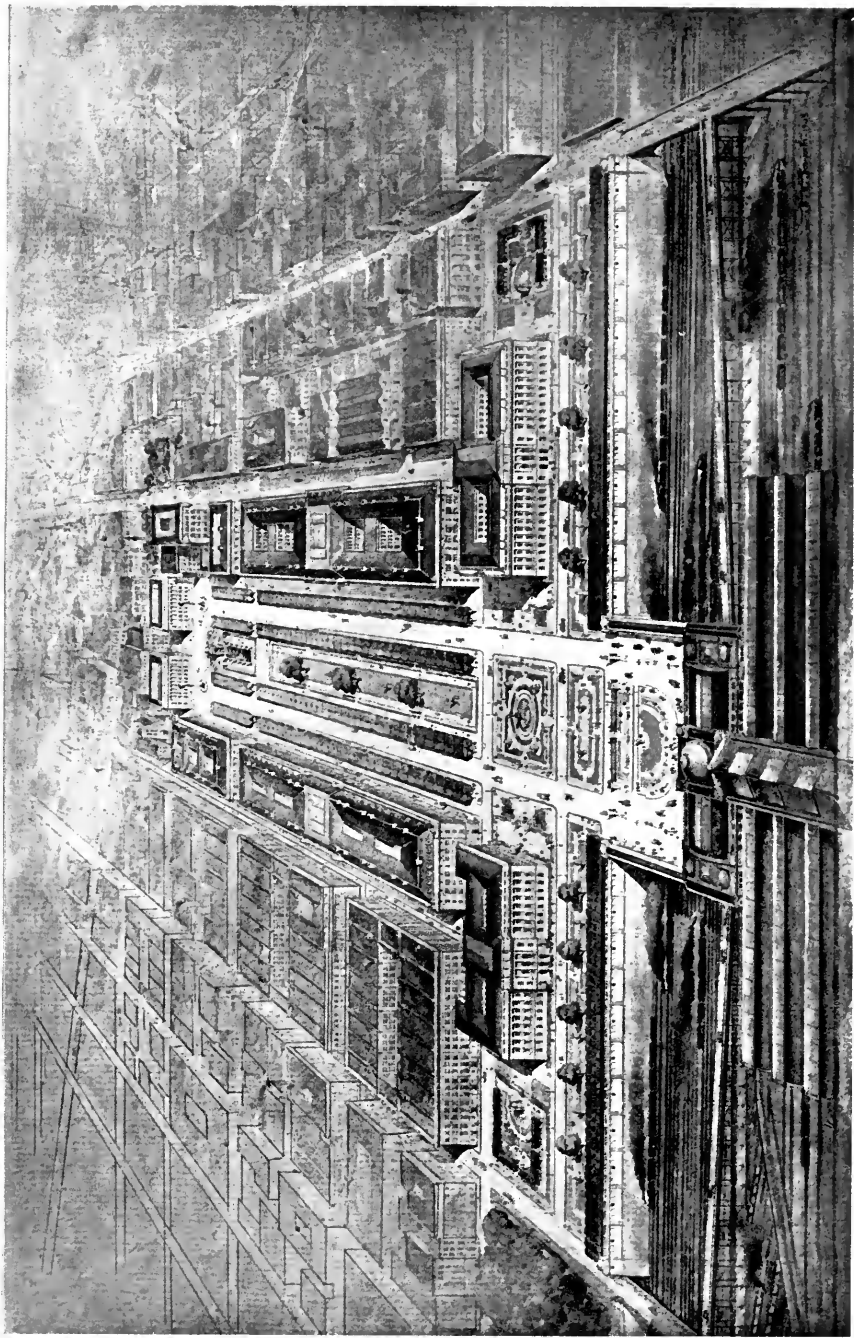


FIG. 3.—GROUP PLAN FOR THE PUBLIC BUILDINGS OF CLEVELAND.
Bird's-eye View, Looking South.

mense civic significance—not only in the fact that it was ordered made, but in its promise for the city's future. It gives assurance that in its way Cleveland is to be no less interesting than Harrisburg or Washington. The individuality of the various reports is, in fact, one of their greatest attractions and merits.

While Cleveland was thus planning for future greatness, its ancient rival, Buffalo, had not been entirely idle. There had been formed, with a large membership, the Society for Beautifying Buffalo, and this had made one of its first steps the engagement from outside of a civic student to investigate the local conditions and report on what the society might properly undertake to do. The report was rendered in the spring of 1902, and it is interesting to observe that it was read at a public meeting, and afterwards published in a little pamphlet and sent broadcast over the city. As the author of the report was the writer, it may be here dismissed merely with the note of this new manifestation of the movement's many phases.

Of an interesting and valuable report for Ottawa, that was submitted at the end of August, 1903, one need not speak at great length. This is because it devotes itself principally to the park development, though it is a bit significant that the popular cry was to make of Ottawa "the Washington of the North."

What is known as the Ottawa Improvement Commission was appointed by the Dominion government in response to this appeal. Having been charged with outlining a scheme for parks and general improvements that should be worthy of the capital of Canada, it employed Frederick G. Todd, a landscape artist of Montreal, to make a report. Mr. Todd wisely says at the beginning that it would not be well to copy Washington too closely, the topographical conditions being absolutely different. Ottawa is broken by steep terraces and picturesque cliffs; its rivers, the Ottawa and Rideau, rush through it by leaps and bounds, in contrast with the placid

Potomac, and the government buildings are pure Gothic—as suited to their picturesque site. The duty, as well as the opportunity, of Ottawa lies, as Mr. Todd says, in developing its natural characteristics, and not in copying Washington. He then takes up the matter of providing a park system, considering under separate heads the reservation of large natural parks, suburban parks, boulevards and parkways, waterway parks, and city parks, squares and playgrounds. On the latter points he touches upon the landscape development of existing properties, rather than upon the acquirement of new. The general, outside significance of his report is mainly its revelation of this sort of civic awakening in a community as remote, in various ways, as is Ottawa. For recommendation has been followed by achievement. In October, 1904, the Commission issued a handsomely illustrated report showing the work already accomplished. Of this the Rideau Canal Driveway is perhaps most important.

This report, while pretending to consider the general subject of city improvement, traps one into consideration of landscape work alone. In fact, this is so important a phase of civic improvement that there is always a tendency to emphasize parks—as is well shown by the Washington report. But it opens another whole field of municipal investigation and report—a field strikingly developed in recent years, and very rich in suggestion and in meaning, and very interesting, but not adapted to discussion here. We may touch upon only one or two of the reports to indicate their scope and their close connection with the general movement.

Chicago, not to be behind other cities, obtained, in 1903, from the County Board the authorization of a commission to plan and secure an Outer Belt of Parks and Boulevards for Cook County. The members of the commission are twenty-nine—five to represent the county, five the city, ten city and county combined, and three from each of the city's three park commissions. The president is the president of the County Board. Included among the various

members of the board are the Mayor, several City Councilmen and members of the County Board, as well as citizens of general public spirit, so that it has not merely authority, but official "pull." The president of the board stated last fall that the commission had been organized and was ready for work and "will crowd things ahead the coming year." And he underscored the promise.

As is not very commonly realized, Chicago is surrounded on its landward side by a beautiful region of forest and meadow, with valleys of rivers and large creeks and some hilly heights that form a watershed between the Great Lakes and the Mississippi. It is proposed to establish the "outer belt" in this region. In the northern section there is suggested a park or reserve of from seven to ten thousand acres, in the west a reserve "of at least ten thousand acres," that may extend to the county line, and in the south a reserve of six to eight thousand acres. It is proposed to secure and preserve the picturesque valley of the Desplaines, perhaps to take the whole of Lake Calumet, and to connect the lands by a broad boulevard, leaving the reserves themselves—as far as practicable—in their natural beauty.

It is clear that the carrying out of any such plan as this is of immense civic significance, and that—though it deal with parks to the exclusion of distinctly city changes—it is not to be ignored as a phase of the general movement.

Another distinctly park report that must not be overlooked, is that which has been prepared for the city of Baltimore, on a scale probably more elaborate than has been made for any other American city except Washington. In April of 1900, when the Washington and Harrisburg reports were still in the discussion stage, the executive committee of the Municipal Art Society of Baltimore—lately formed, but very strong—reported to the directors that it was considering a recommendation to the city to purchase a belt of suburban property, some of it to be retained as parks and the rest leased as the city

grew to it. The committee pointed out that much of the beauty of Edinburgh is due to the comprehensive plans for its development that were made sixty years ago, and it advised that an expert be called to Baltimore.

Two years passed, and then, May, 1902, the Municipal Art Society, believing that the time was ripe and that the city would recognize the importance of the project and would meet the cost, authorized the Olmsted Brothers to make a report "on the development of public grounds" in and about Baltimore, and guaranteed the cost. At the end of November, 1903, the Olmsteds submitted their report, and on the recommendation of the park board \$3,000 was appropriated to pay for it, and \$500 additional to pay for its printing. The printed report appeared only last fall. It contains nearly 30,000 words, and is fully illustrated with photographs, maps and charts. About half of it is devoted to a general discussion of the park requirements of cities, that is as applicable to any other municipality as it is to Baltimore, and that is full of sound reasoning, and is very valuable.

In regard to the specific recommendations for Baltimore, it may be said, very briefly, that the report urges (1) the somewhat familiar scheme of an encircling chain of boulevards or parkways. These would connect Patterson Park, the area of which should, the report declares, (2) be doubled; Clifton Park, where (3) there should be a slight amendment of the boundary lines; Montebello Park, Wyman Park and Druid Hill Park. Thence the parkway should reach Gwynn's Falls, and following that creek come to the river. Reservations are urged in the valleys of (4) the Patapsco river, (5) Gwynn's Falls, (6) Jones Falls (thus bringing Lake Roland, which is already city property, into the scheme), (7) Stony river, and (8) Herring Run. There are urged large reservations far beyond the limits of the county, as (9) Lock Raven, (10) Black River, and (11) Marley and Furnace creeks, together with recommendations (12) for the control of various roads that make accessible these

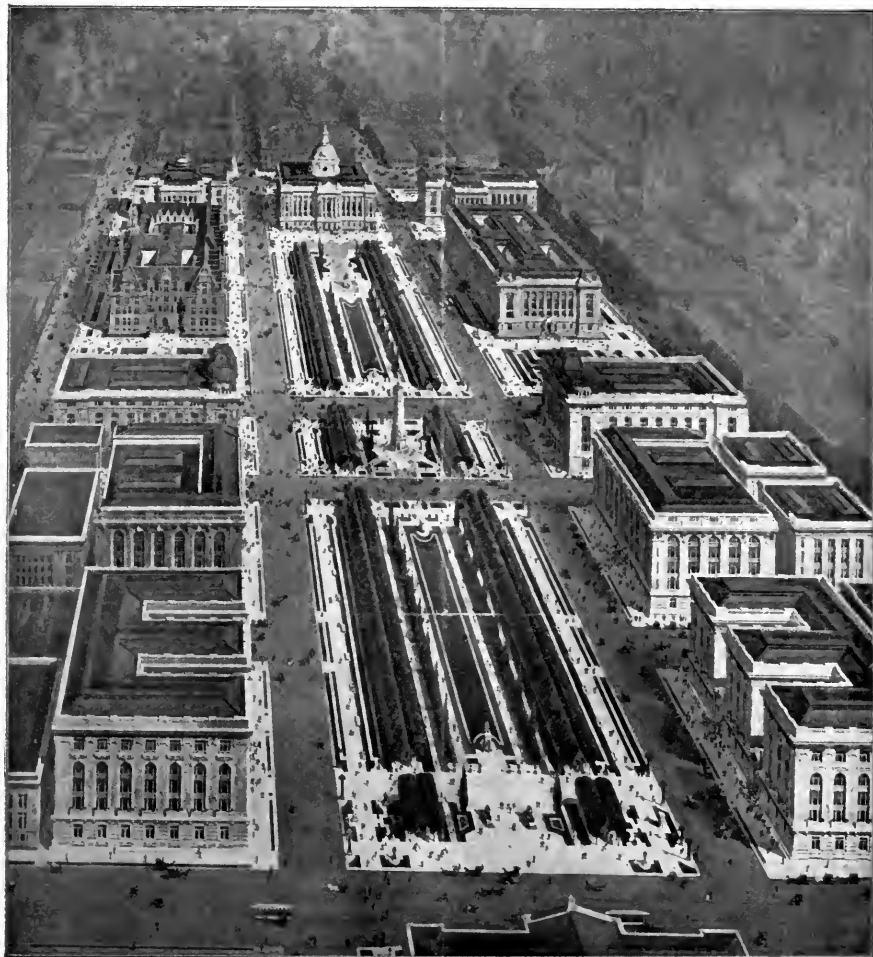


FIG. 4.—PLAN NO. 2 FOR THE PROPOSED CIVIC CENTER IN ST. LOUIS.
Looking South, Between Thirteenth and Fourteenth Streets.

reservations, and (13) for the acquirement of a large number of small open spaces of more intimate urban significance. The whole plan is most splendid and elaborate, and it is presented bit by bit with a force of argument that may well prove convincing. It is clear that municipal times are changing when our cities have before them such civic dreams as these.

On the street changes recommended by the Baltimore Emergency committee after the great fire a year ago, there is little need to dwell. They were mainly widenings, and through a combination of circumstances the city did not rise to its full opportunity. But at least it did not start to rebuild on quite the old lines, and its much-heralded difficulty in trying to meet adequately the opportunity which the catastrophe had so suddenly thrust upon it, has served to enforce with other cities the lesson of the value of having a comprehensive plan all prepared. And in Baltimore itself a sudden change of executive has since resulted in larger ideas and brave determination.

As if to emphasize the far-reaching character of the movement for securing expert plans for cities, there appeared almost coincidentally with the Baltimore report the report of the Public Buildings Commission of the city of St. Louis. This is issued in a handsomely printed and illustrated pamphlet, and its interest is assured by the composition of the commission: John Lawrence Maura, William S. Eames and Albert B. Groves.

Having considered briefly the present "intolerable" conditions in various municipal eleemosynary and penal institutions, and methods of remedying them, the commission takes up "the much more difficult scheme of housing the municipal departments in a convenient, economical and dignified manner." To this problem it brings enthusiasm and artistic zeal. Addressing their report to the Mayor, the commissioners say that they do not expect the whole project to be undertaken by one administration, but that it is their purpose to advocate such placing of the buildings

now most urgently required as to "start a plan so obviously advantageous that in years to come succeeding administrations will recognize the desirability of adding to and finally completing the project." In thus planning for the future the Public Building Commission of St. Louis is following in the steps of the various other expert commissions.

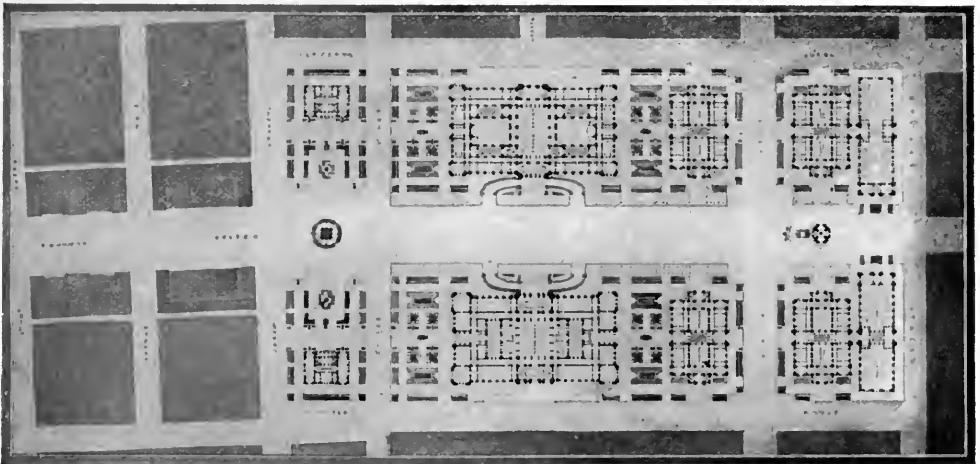
The municipal buildings immediately needed in St. Louis are a main building, about the size of the new and costly city hall, and in proximity to it, to house the various courts now using the Four Courts and the old court house; the police and fire department headquarters, dispensary and detention rooms, etc.; and a modern jail, which also may be near the other structures. Two plans are submitted, each forming a civic center in which the present city hall is a feature. Plan number one, which is the more obvious, develops Twelfth street as a municipal court. Across the way, and balancing it in size, is placed a new court house. On the right of the city hall, as a smaller structure, is an executive building, and to balance it there is placed on the left of the court house a law library. Then comes Clark avenue, and on its corners (1) the fire department headquarters and engine house, and (2) police headquarters and jail. These fill the block to Spruce street, which terminates the municipal court on that side. To the left of the city hall, and filling the corresponding block between Market and Chestnut streets, is a historical museum, while similarly placed across Twelfth street is a hall of public records. Plan two develops a scheme on the other, or Thirteenth street side of the city hall. This is much more elaborate, substituting for a mere "court" a magnificent parkway, the width of the block between Thirteenth and Fourteenth streets, and extending four blocks past the city hall to provide a vista to the public library. At the near end of the "parkway," and closing the vista from the public library, would be the new executive building. Across the "parkway," but now between Fourteenth and Fifteenth streets, the new court house would again balance the city

hall. On the left of the city hall would be the fire department headquarters, and on the right of the opposite court house the police department. Both plans make elaborate provision for monuments and fountains, and promise a very imposing effect. Of the two, the second would involve slightly the less immediate expenditure; and it is noteworthy that even for the first the sum immediately required to secure the land and erect the buildings now needed, is estimated at under three millions—a matter that should make feasible the realization of St. Louis' dream.

This article has already grown long, and the whole story of this new American municipal movement has not been told. But the other plans are still for the most part under way, and are not yet published. Probably more civic expert work is being done to-day than at any other time since the movement began, and in a year or two there will be need of another catalogue of concrete civic ideals, of dreams that other cities have resolved to bring true. In New

York, for instance, Mayor McClellan appointed a commission on city plan in December of 1903, and it has already made a preliminary report that is full of suggestion. The Association for the Improvement and Adornment of San Francisco has recently engaged D. H. Burnham to make a report to it; and Mr. Burnham is now in Manila, on orders from the Secretary of War, to make plans for the artistic regeneration of that far eastern capital. The writer himself has within a few months submitted a report to the Board of Commerce of Detroit on the inspiring opportunities presented by that city for physical improvement and civic dignity and beauty; and doubtless there are many other plans in preparation, of which we shall not hear details until they are completed. At least there is already evidenced a great and significant awakening to new civic ideals—a matter that is of extraordinary promise in architectural opportunity, not to take a wider view of it.

Charles Mulford Robinson.



Hall of Public Records. Court Building. Law Library. Police Headquarters and Jail.
Historical Museum. City Hall. Executive Building. Fire Headquarters.

FIG. 5.—PLAN NO. 1 FOR A CIVIC CENTER IN ST. LOUIS.



THE RAILWAY EXCHANGE BUILDING, CHICAGO, ILL.

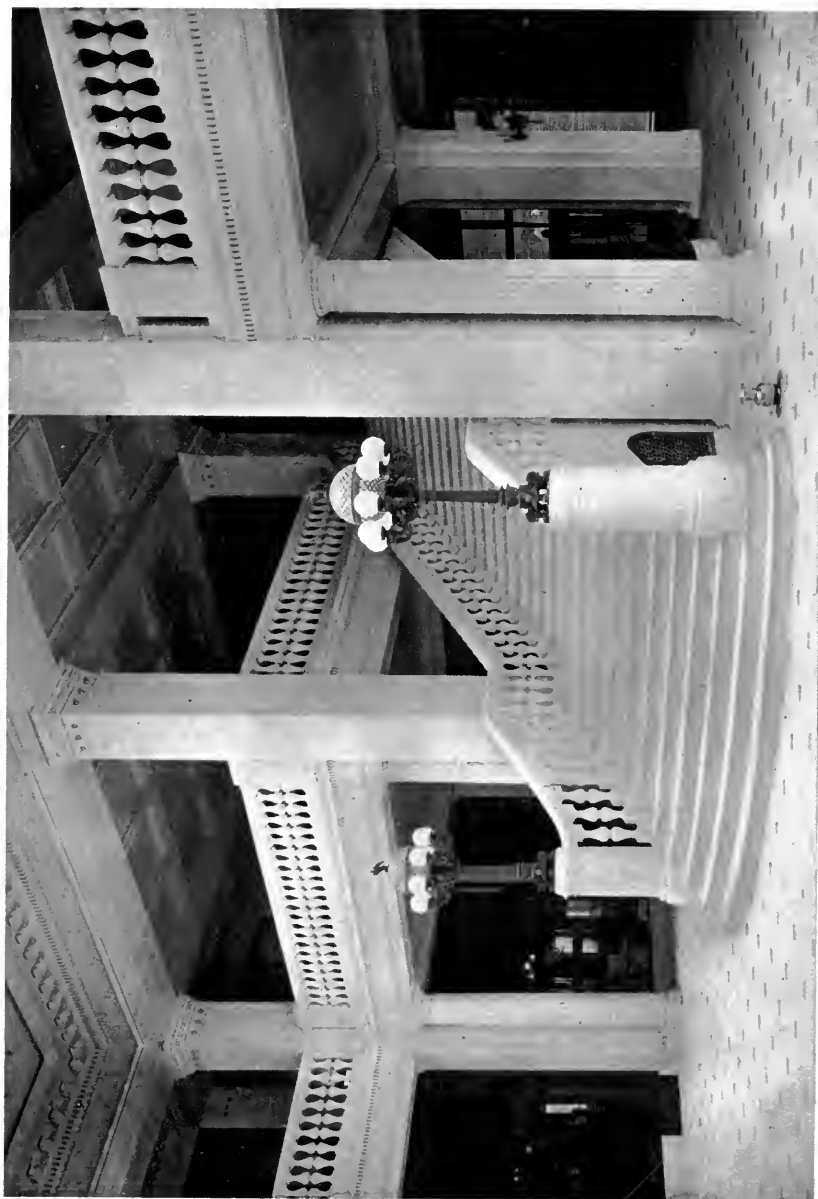
D. H. Burnham & Co., Architects.

NOTES & COMMENTS

RATIONALIZ- ING THE SKYSCRAPER

I was rather surprised the other day to hear an eminent architect, who has himself "committed" many sky-scrapers of the prevailing florid type, seriously maintain that we need, more than we need anything else, a period of fasting in architecture. In making this remark, he was innocent of plagiarism, but as a matter of justice, I would like to fix the patent for this proposition upon its veritable author, Mr. Russell Sturgis. The patent will probably not be of very much value to its author just at present, but by-and-bye when experience has chastened the entire profession, there may be no little renown in it. For we may recognize later on that there are benefits to be derived from even a very meagre diet. Although the eminent architect, to whom I have referred, is not, I judge, likely ever during his career to profoundly alter his practice to conform with his creed, there are others in his profession, an occasional few here and there, who perhaps as much from necessity as from preference, illustrate what might be derived were the period of fasting actually promulgated. In the Railway Exchange Building, in Chicago, designed by D. H. Burnham & Co., we have an example. Curiously the Chicago millionaire has from the very first exercised a "restraining grace" upon architecture. Possibly the result is due to the circumstance that his practical sense has been so very much stronger than his artistic inclination. Mr. Burnham, as we all know, has operated a great deal under this western restricting influence, so long, indeed, that we may say his practice of architecture illustrates it. Looking at this Railway Exchange Building, the candid mind can hardly refrain from at least asking "whether the theory and practice there exemplified are entirely without merit—whether, indeed, they are not after all very much closer to a thoroughly sound starting point for the design of a skyscraper than the more pretentious methods of our school-men." Of course, it will be said at once: This Railway Exchange Building is monstrously ugly, a tremendous affair of window-sashes, an aggregation of bird cages, lacking structural sufficiency as a matter of design in all its parts, but especially in the basement, in the piers, in the corner abut-

ments, in all the horizontal lines, except, possibly, in the crowning story where—mark you!—the architect (perhaps because these upper stories are invisible, save from a steamer out on the lake), has departed from his practical theory and has inserted a row of round windows in a solid wall. It must be admitted one cannot directly shake off this attack. It would be a queer eye that would claim beauty for the result. No! the design is not beautiful—it is merely interesting because it is rational, or rather more rational than it would be had the architect been less of a radical. Of course, if we can dispense with the rational in architectural design, and by that means, produce in the course of time an architecture worthy of real consideration, well and good! The verdict then is clean against Mr. Burnham, and all others that shall follow in his foot-steps. But that is not a judgment that can be pronounced off-hand. It is not at all out of the question that we shall yet come to see that the first thing we have to establish is the Building, our first concession to art is to accept it (the building) as it really is, and then patiently and laboriously labor with it, to beautify it and "design" it. Of course, this is equivalent to saying that the task imposed upon the architect by the skyscraper involves "the art of creating with difficulty, works of an easy and natural character." This is a task, be it for Mr. Burnham, or be it for anyone else, quite beyond the capacity of the innovator. Perhaps it is because our designers are so ready to dispense with the rational element as Mr. Burnham and the Chicago millionaire are not, that our architecture has never acquired any dynamic force. There is no mordant in our designs. Of charm and merit there is much in what has been done, but the qualities are superficial, exhibiting a certain craving for instantaneous effects. Old Dr. Johnson spoke of notions borrowed from without, and put them in opposition to notions generated from within, and this is the whole of the matter with our architecture. Our modern work is a mass of quotations, and it is as certain as anything can be, that we shall never nationalize our architecture until we have done very much more than we have done towards rationalizing it. Herein, I judge, we have the value of this particular piece of Mr. Burnham's work. He even indicates in this Railway Exchange Building,



INTERIOR OF THE RAILWAY EXCHANGE BUILDING, CHICAGO, ILL.

D. H. Burnham & Co., Architects.

in his treatment of the upper four stories, the long projecting bays, and the cornice, the direction in which experiments at least may be made towards giving the skyscraper a more definite form, and a stronger artistic coherence. Moreover, there is the material. Mr. Burnham used in this building a white glazed terra-cotta. Nothing could possibly be better for the smoky atmosphere of Chicago. But a building of this material need not be wholly white, or white at all. Color so far has been an element of effect which our architects have, at most, employed with great timidity. It is interesting to note that in the interior of this Railway Building the architect has so completely "gone back" on his theory, that one might, possibly ungraciously, perhaps unfairly, ask whether after all, he had any consistent theory. In the large entrance hall, which we illustrate, it may be seen how far he has returned to the conventions, and let us note conventions carried out in white glazed terra-cotta, a material entirely unsuitable to at least some of the forms which he has employed. The piers may pass, but certainly we cannot forgive fluted columns covered with a glaze which absolutely confounds the flutings and their araises. Even the honeysuckle design, beautiful in stone where the sharp edges and their shadows are possible, loses all decorative value when coated, flattened, and filled up with a gelatinous-like glaze. The moral perhaps is that it is not so easy to reach even the rational standpoint off-hand.

H. W. D.

A NEW HISTORY OF ARCHITECTURE

"Which 'History of Architecture' would you advise me to read?" This is a very familiar question, one that in the beginning comes almost naturally to the lips of the architectural student, for the student limited to English, there is hardly anything between "Old Ferguson" (of course, in its amended form) and Russell Sturgis's "European Architecture." The English language, indeed, is singularly deficient in good hand-book of architecture, a deficiency which arises, no doubt, from Anglo-Saxon indifference to the subject. They do these things better in France, so much better that the student acquainted with that tongue, is literally embarrassed by the "riches," from which his selection may be made. Even in French, however, there is nothing to equal Choisy's extraordinary "History of Architecture," of which one

would be tempted to say it can never be excelled, were it not for the fact that prophecies of this sort have suffered repeated reproof. The Germans, in some respects, are even more abundantly provided than are the French with hand-books of the kind that we are speaking of. The latest to appear in that language is Dr. D. Joseph's "Geschichte der Baukunst," (New York City, Bruno Hessling). This work is published in two substantial volumes, each of over four hundred pages. These volumes are abundantly and wisely illustrated. Be it understood that to say this of a hand-book of architecture, is at once to bestow upon it no inconsiderable praise, for architecture is quite indiscussable with the student at any rate, without the accompaniment of photographic reproductions and plans, and the selection of the fittest subjects for a work that contains something more than seven hundred pictures is not a task of small or easy labor. In Dr. Joseph's book the pictures, of course, are selected from all sources, from the works of previous writers, from special monographs, and from the well-known photographic collections. This method, perhaps the only one available for a work that is not to be put upon the market at an extravagant price, has, however, this very serious defect—the plates are usually somewhat poor and "muddy." A half-tone plate, made direct from another half-tone print, is necessarily imperfect. The detail inevitably is lost to some extent, and the "half-tones" tend to disappear in blotches of printers' ink. We hope the day will come when publishers of repute will adopt a sounder method, at least in regard to their "half-tone plates," working, in all cases, direct from the photograph. The practice of transferring cuts from one book to another was not open to this complaint when architectural books were entirely illustrated from pen-and-ink drawings, and when the engravings were made on wood—but the case, or at least the result, is different with "half-tones." Moreover, publishers should keep in mind that, except in rare cases, a photographic half-tone of an architectural subject is preferable to a line drawing, a caution which, of course, does not apply to plans, or to old sketches that represent buildings as they were before alteration or dilapidation. Dr. Joseph's work is free from very many errors on these counts, but it is not entirely free. As to the text, the author has proceeded along conventional lines. He exhibits, however, an admirable sense of proportion in his description and elucidation of the different styles. He provides the student with exactly the information that is absolutely necessary, and

at the same time rigorously omits a great deal of the parenthetical matter, which encumbers a great many other architectural hand-books. To the student, who is familiar with German, we can heartily recommend this new work. Finally, and by the way, the German is, for German, singularly clear, fluent, and devoid of unnecessary technical terms.

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**BUILDING
OR
ARCHITECTURE?**

While these "Histories of Architecture," to which Dr. Joseph's work is the latest addition are before us, it is difficult to resist the inquiry: "To what extent do they really deal with architecture itself?"

Would it not be more exact to style them *Histories of Building Construction*? Possibly, to some persons, this may seem like making a distinction where really there is none, and, undoubtedly, it is somewhat of a metaphysical effort to endeavor to draw a line between the aesthetic substance of architecture, and the materials and forces by which and in which the fine art element necessarily finds its expression. Every one will agree, however, we think, that there is something more to architecture than its morphological parts. For instance, when one has been told that the "Greek Temple" was a building of so many columns of such and such proportions, of architrave, of pediment, etc., in short a building composed of so many elements placed in this and that relation to one another, what has one really learned about the "fine art" element of the structure? Does any description of the structural divergences that separate the Doric style from the Gothic style permit the student to penetrate by a single hair's breadth beneath the surface of the difference? These enumerations, these bills of particulars, no matter how complete and detailed, do not bring us at all within touch of the intellectual action in a work of art. The most that we can obtain from these structural descriptions of a building is the "how" of architecture, not the "what"—in other words, we are limited entirely to the ponderable realities. The process reminds one somewhat of an endeavor to describe the engineering of a cantilever bridge to an engineer by informing him of the weight of the materials used, the number of the supports, the strength of the members, and so on. Surely to all of this, the engineer would say: "Tell me the principle involved, give me the calculations, in short, enable me to penetrate into the mental proposition involved in the structure."

And is not the mental or aesthetic proposition involved in a work of architecture the very element, the only element, that makes of architecture a fine art? The fine art difference, that distinguishes one style from another, does not lie in the use, say here, of the trabeated method, and there, of the arcuated method. Those are *constructural* items. They may, indeed, involve, even if you like, necessitate philosophically aesthetic differences of the profoundest character, but in themselves, they are not of fundamental distinction. There are many styles employing the arch that are infinitely further apart from one another than from other styles that employ the post and beam. As an illustration of our point, we cannot resist quoting Lowell's:

"Now it is not one thing nor another alone,
Makes the poem but rather the general tone,
The something pervading uniting the whole,
The before unconceived, unconceivable soul."

A History of Architecture, it seems to us, should have a great deal more to say about this "general tone" than is the case. Surely, this element is not unthinkable. It is not indescribable. Does it not, indeed, fall well within the possibility of analysis? Is it not, in some degree, to be accounted for? If it be alleged that the task is impossible and we must content ourselves with the superficial description of buildings, the enumeration of columns, the measurement of altitudes, and other circumstances of the foot-rule, then let us frankly omit the word "architecture" from the title of our histories, and hand-books.

H. W. D.

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**A NEW
CHAPTER
OF
ART HISTORY**

In some sense a continuation of Mr. Lethaby's admirable discussion of Byzantine art (for which see the April number of the *Record*) is the very remarkable little quarto published last year at Leipzig: *Kleinasien, ein Neuland der Kunstgeschichte: "Asia Minor, a new field of art history."* It is the work of two different students, J. W. Crowfoot and J. I. Smirnow, but the editor of the whole work,—the compiler and in one sense the author of the text—is Joseph Strzygowski. It contains two hundred and forty odd square pages, and 162 cuts in the text—of which some are plans and sections, and perhaps half are fairly successful half-tone prints. Now, it is simply the most interesting thing which the architectural student of strange and little known subjects has to hope for, this opening up of a region always rich in buildings of one or an-

other epoch, and which in the time of the early Byzantine development was a prosperous land; for the misery, the waste, the desolation of Asia Minor is of modern times. It dates from the conquest of the Ottoman, which was, however, only the last of the successive waves of invasion which rolled over the land, as the power of the Eastern Empire declined.

Mr. William M. Ramsay has explored the country and has renewed the cartography of the heart of Asia Minor; the borders of the country at least have been explored by the American School at Athens and by other such investigators of classical sites, for noble buildings of Greek type; Armenia has been studied, more or less, in connection with the land north of the Black Sea; and now comes this investigation especially devoted to the early Byzantine churches of the highlands in the heart of the country.

A map is given of Asia Minor, and those points are indicated where there are now to be found monuments of Christian art. They are shown to be thickly grouped in the highlands near the Halys river, where there are twenty towns of interest; again farther south, as near the coast as the high mountainous land reaches at that point, and here another score of towns are still more closely grouped together; and finally in separate places as far removed one from the other as Nicomedeia from Pergamon, and both from the ruins of Aphrodisias. Following this map comes the study of those discoveries which are specially credited to Mr. Crowfoot, the buildings themselves being described and explained rather fully, to the extent of 40 pages with 27 illustrations. Following this comes a very elaborately classified study of the architectural types of Asia Minor: I., the Basilica; II., the Octagon; III., the Basilica with the Dome; IV., the Cruciform Church with a Dome or Domes. It is worth noting that buildings in Constantinople are compared with these newly discovered churches of Asia Minor, and that in this way the indirect service is done to the student of giving him some of those important churches in the Capital of the East. Then, again, some few churches of Asia Minor are also rather stately in appearance, and as yet unruined; such an one is the church at Nikaia (Nicaea), which is a large domed church as full of hanging lights and pulpits and screens as any building in Constantinople, and displaying a most gorgeous iconostasis.

Following this long study of the type, the question of epochs and the fixing of dates calls for attention, and as the churches do not bear inscriptions, with a few very rare ex-

ceptions as pointed out on p. 158, so a very elaborate piece of reasoning has to be undertaken. Again following this essay, there is a discussion of the position of Asia Minor between the Orient and Greece, between Rome and Byzantium, which is further developed in a final essay bearing the same title as the whole volume.

It has seemed necessary to state what the contents are, because we know so little about Asia Minor that only an examination of the book can give one any idea of what its scheme is. What has Asia Minor for the student of church architecture? No person need be ashamed of not having had the answer to that question at his tongue's end, until now. This very exceptional book will enable him to form an opinion as to what the very old "new land" does really contain.

R. S.

**ST. PAUL'S
CHAPEL
AT
COLUMBIA**

The Columbia University Quarterly publishes a plan and two views of the proposed chapel of the University. Those who know the grounds will remember that the huge, nearly square library stands in the middle of the southern front, set back not very far from West 116th street, and that there are ranged around the outer edge of the grounds many buildings devoted to the different departments, the lecture rooms, etc. Directly on the transverse axis of the library, a line running nearly southeast and northwest, and between the library and Amsterdam avenue, is to stand St. Paul's Chapel. Its orientation cannot be regular, as the choir will have to be set well away from the east and west line; it will be somewhat crowded among the taller buildings about it, but they are not much taller—five-story college halls—nor will their nearness to its windows prevent the building being light enough for its purposes. This will certainly be the case if the windows of the towerlike cupola, to be mentioned below, are allowed to help in the illumination of the interior. The building stands on rising ground, so that the view of the apse shows long flights of steps filling the whole width between Fayerweather and another future "hall," as if the chapel stood upon a slope composed of such a gigantic stairway; but this, indeed, is a not unfamiliar device, and it is not without a certain interest that one sees a building built on a hillside but without the appearance of threatening to slide down it. It may not be out of the question to do as the Greeks would have done in such a case, and to build these steps on a greater than human scale—two-foot

risers and the like, with only a comparatively narrow usable stairway built into the architectural stepped base. That would take away from the single objection to this system of disguising the slope by steps—the objection that it comes to look like a pile of sheets of paper in comparison with the massive buildings near.

Extended notice of the building is deferred until its completion, next fall, or at least until it approaches completion. Something, however, may be said in advance, the more readily that the carefully made perspective views lead one to hope for a remarkable triumph of intelligent design. Now, in using such words as this, in speaking of a design as triumphant, it has to be understood that the structure itself will be a noble thing, and not merely its picture in the artist's mind or on his office-made sheets of drawings. And that there may be some reason given for this hope—for this extraordinary promise of that rare and wonderful thing, a consistent building, let its character be explained. It is cruciform in plan, with the arms of the cross in but slight projection from the square mass of the crossing. This crossing is covered by a cupola, of which there must be special mention, and from it project the arms of the transept, not more than ten or eleven feet northeastward and southwestward, while the choir projects in the same way perhaps fifteen feet to a square gable wall and again projects as much more in the form of a semi-circular apse. The nave toward the library building has a somewhat greater projection than the square part of the choir, or somewhat less than that of the whole choir, including the apse. This is very difficult to follow, but the plan, however carefully and delicately drawn, is without scale and all that is given here is a matter of inference. The seating accommodation is given, however; the choir seating 120 persons in its removed and separated capacity as a thing apart from the rest of the chapel, while the main floor is to seat 820 persons, and the galleries (in the transept) 100; so that if those dimensions are set down here as 140 feet long from out to out of the heavy walls and 80 feet wide from out to out of the transept, the figures so given will not be far away from the ultimate result.

The cupola, then, which rises from the crossing, will be 48 feet in diameter within, and it will take the form of a sixteen-sided polygon, one story high above the ridges of the low roofs of nave, choir and transept, that one story being filled with round-arched windows separated by double pilasters. A low attic, or more properly, *bahut*, rises above and in retreat from the main wall of this

blunt tower, and is crowned by the tiled roof, which will have a slight swell, as of a depressed cupola crowned by a very small, perhaps a too minute, an unimportant lantern. The windows of the apse and of the transept front are round-arched, but their detailed character is not quite decided upon, as is evident from the treatment of these windows in the perspective views, where the pattern of the glass is allowed to dominate even in the exterior view.

The main porch of entrance is a semi-classic portico *in antis*—two columns of what may be called a Roman Doric type between two semi-columns or attached columns of the same style—but this detail is a thing which may be constantly in the way of change until the final contracts are let. The reader who has the patience to follow this examination will note that the details are very nearly classical, while the structure is round-arched in the mediæval sense—Byzantine, if you please, though not of the Byzantine of Constantinople. R. S.

THE CHAPEL'S STRUCTURE

So much can be learned from the published drawings given, though on a small scale, as stated above, in the pages of the University Quarterly. But now there is to be given to our readers some good news for which the architects are responsible, since letters of appreciation and hope sent to the architects have been answered by assurances which are gratifying enough. The building will be a study in true vaulting and in that decorative treatment which comes of a carefully studied construction. The visible parts of the construction, the brick, the terra cotta, the "Guastavino work" or vaulting in tile, the marble surface adornment—those are to be the only mediums of internal decoration except, evidently, the very rich windows which it is clear are either promised or confidently hoped for, and which will give the otherwise lacking element of varied color to the interior. The outside, then, will be a frank study in arched construction, with many late Roman details. Perhaps, instead of late Roman, we should say Eastern Romanesque—Syrian Romanesque—except that there is no sign of deference to the Greek example which has caused the Syrian buildings themselves as shown in the famous books of De Vogüé and Howard Crosby Butler to originate the new word Hellenesque to match Romanesque in a very obvious and natural way.

And for the interior we must expect a

building which many visitors will call "cold" or perhaps "hard"; that is to say, it will have no wooden floors, nor window trims, nor doors of pretty cabinet work; but will be sternly consistent as a building of masonry, walled, vaulted and floored in stone, brick and cement mortar, with only so much of the wall as is translucent given over to brilliant or powerful coloration.

It is a pleasure to record these promises of the future and to put Columbia University on record as willing to devote a considerable fund to really sincere and intelligent architecture. One hopes for still better things than that, one hopes for a noble design nobly carried out: but the straightforward sincerity of the undertaking is already made certain.

R. S.

**THE YALE &
TOWNE
POCKET-
BOOK**

It is a stout little volume of 1,117 pages, besides advertisements, but measuring only $4\frac{1}{4}$ by $6\frac{1}{2}$ inches, although so thick. It is entitled "Locks and Builders' Hardware," by Henry R. Towne, and is

published by John Wiley & Sons, under date 1904. It is one of those rather numerous books of universal information which the elaboration of the building trades—their great complexity, their many-sided nature, their varied appeals to the purse, have brought into existence; and if this volume seems to deserve a note all to itself, it is because of the unusually varied character of the information contained in the book, both in text and in picture, and the accurate and trustworthy character sustained in its pages. As for the variety of the contents, it can only be explained by a brief attempt at analysis; for, as to text, there is first a glossary of technical terms filling 24 pages, which glossary would form a valuable addition to any dictionary one can name; then, Section 1, which covers "Lock Making and Art Metal Working in America," by the author; and Section 2, "Artistic Hardware," written by Mr. Montgomery Schuyler seven years ago and published at the time. To stop there for a moment and to comment, it may be said that the purpose of the book is, of course, to publish and proclaim the merits of the metal house-fittings by the firm, Yale & Towne, and that there is no disguise attempted of that fact, while at the same time it is not forced upon the reader. All through the book there are interspersed pages of photographic prints of the lock-plates, hinges, escutcheons, and such other "builders' hardware" as is susceptible of what may be called

artistic treatment, and larger pictures show the interior mechanism of locks of many kinds. Section 3 is an interesting paper by Henry Harrison Suplee, entitled "Artist and Artisan," and Section 4, entitled "A Bit of History," deals with the foundation of the Yale lock as a highly developed industry and the modifications that it has undergone. This subject is continued in Section 6, which is especially entitled "Story of an American Industry," and in Section 7. Then the book seems to settle down to a historical discussion of locks and lock making generally in all their varieties, and a brief chapter is devoted to that, and with page 102 the end is reached of the first part of the little volume with multifarious contents.

Part II. is rather more consecutive and weighty in its general subject. The theory and nature of the lock and key and its essential characteristics; the process of picking locks, with the lessons to be learned therefrom; the different grades of builders' locks; the peculiarities of locks having master-keys; locks of wrought metal with their special elaboration of mechanism; locks with cylinders and pin tumblers; keys in all their different forms; "the front door lock"; locks for residence use and those for hotels and large offices; to each one of these subjects a separate chapter is given. If one were to read these chapters consecutively, ignoring the titles, he would have very nearly a continued essay on the subject, which essay, although it might seem a little wanting in the valuable quality of continuity and inevitableness, would yet prove interesting enough, and full of material. So, when the editor of the book abandons the lock itself and goes off into hinges, kick plates, knobs, spindles, bolts, window-holders and shutter-holders, padlocks, and lock-boxes for the post office, the same characteristic of a pocket encyclopedia made accessible by a tolerably full index is maintained. Very much of what we want to know in our every-day practice is given in these 220 pages; and yet we have passed through only one-fifth of the little volume.

Now, if that were all, the book might pass for a cleverly built advertising pamphlet, and would demand no mention in this department, but a new departure is taken with Part III., and after an essay on the relation between architect and client, the purpose of which appears to be to get architects to specify American hardware, the editor settles down to a discussion made up of papers by W. W. Kent, the architect. The title of this section is "The Schools of Ornament" and it occupies 350 pages, with pictures which make it something very like the Owen Jones'

Grammar of Ornament on a small scale. There is a good deal of sense shown in the discussion of the different styles of decorative art. What is said about India and Egypt is not, perhaps, important except for the mechanics into whose hands this book would fall, and who may have by them but little information in this department; but the paper on Chinese art, followed by one on Japanese art, that on Persian decoration, and the considerable number of well chosen photographs which illustrate those three chapters, are worthy of anybody's close attention. You may have large opportunities for the examination of photographs and yet not find, on the whole, so good views of important monuments in China and Japan, or of monuments of relatively equal importance of the more transportable kind. But, indeed, this characteristic obtains throughout the volume, and the little illustrations of Greek art are as well fitted to the text and as good in themselves as those of any other branch of the subject. To be sure, it is an annoyance to have pages of the Yale & Towne patterns in what is supposed to be designing of the Greek school, interspersed between the real designs of antiquity; but that is what the book is for. So in the pages of Roman art, there are some, indeed, of the conventional little pictures of urns and candelabra which everyone knows, but there are also ornaments chosen from Pompeii, which are well presented and of possible utility. The whole treatment is so very brief and summary that a person already half-informed and wishing further knowledge, will be somewhat impatient at the quick dropping of a subject; but on the whole, patience in reading what there is here is apt to be rewarded. Byzantine art is taken up and illustrated by a number of good pictures to which the text fits, and to this, of course, succeeds the Moslem art which was the natural sequence of Byzantine. It is noticeable that there are no mistakes made. Wherever the information came from, it is up to date in a way. A few years ago, and it would have been impossible to have written in this way about Byzantine and Saracenic art; for it is of our own time, the information we have gained of that strange epoch in artistic history.

It is not practicable to follow up the changing themes of the book throughout, but it is evident that only practice with the book in hand would enable any one to decide how far the whole of its multifarious contents are easily available. Not altogether can the index make every part of the book accessible. There is the entry "door-knocker" and the entry "knocker, door," but it does not follow from this that every possible question which

could be asked of the index could be answered with promptness and fullness.

One is left wondering what is the full influence of a book of this character. Will it tend to make the owner of it much too sure that he has everything which under any circumstances he might need, or will it work rather toward greater wisdom by inducing a man to go further? That it contains a great mass of knowledge and may be of great use to the working builder is evident enough in what has gone before.

There is a bibliography somewhere in the volume, but search in contents and index fail to bring it to light when needed. It is to be found at page 286; but while it includes the names of very good and very recent books, it is very brief and contains some odd blunders.

R. S.

NOTABLE LECTURES IN BOSTON

In Boston during the last winter there have been remarkable opportunities to hear civic improvement lectures of extraordinary power, and they have been availed of by very large audiences. One of the Lowell Institute courses of free lectures was given this year by Professor William T. Sedgwick, who took as his subject "The Sanitation of Cities." He likened the municipality to an organism, and in a series of ten lectures considered the various problems of income and outgo involved in its proper nutrition. In addition to this course there was a free course at the Public Library, where the lecture on "Village Architecture in Massachusetts," by J. Randolph Coolidge, Jr., was possibly of most interest to our readers. The speaker stated that of the public buildings in the towns of the Commonwealth, the library was usually most conspicuous architecturally. At present there was a drift, he observed, from the picturesqueness of the H. H. Richardson type to a formalism that could be traced to the influence of the building of the Boston Public Library and that was not complete without a formal setting. A third notable course was that given by M. Despradelle, the French architect, before the Alliance Française, on the Evolution of Modern Paris. Although these lectures were given in French, they drew audiences that packed Huntington Hall. The last of the series was on the public buildings and M. Despradelle named the four following works as easily heading the list: Notre Dame, the dome of the Invalides, Gabriel's Garde-Meuble and the Opéra. After these come the Hotel de la Mairie—he thinks—the Min-

istry of Foreign Affairs, some of the Ecoles and Lycées, a few railroad stations and hotels, without forgetting, naturally, the splendid portions of the Louvre, such as the old Louvre of the Renaissance, the facade on the Seine and its beautiful arcades. The speaker thought that Labrousse had especially excelled in making his buildings express purpose, naming his Library of St. Genevieve and certain parts of the National Library as masterpieces.

**WESTERN
MUNICIPAL
ART
COMMISSIONS**

It is interesting, from both a civic and social standpoint, to find that the creation of municipal art commissions has spread into the West. And in moving Westward they have undergone that scarcely definable change, which the East would have half expected, that finds expression in the admission of women to their membership. On the Art Commission of the City and County of Denver, two women are included, and one of these has become its Secretary. On the Municipal Art Commission of Los Angeles, there are also two women and one of these, in the drawing of lots for length of term of office, drew the lot for the longest period of all—five years. So the women have arrived with something of a rush!

The Denver Art Commission, at the request of the Mayor—who is its only ex-officio member—has undertaken the preparation of a report on "the present condition of the city, for guidance in matters affecting its artistic improvement and future development." The Los Angeles Municipal Art Commission—which until January 23d of the present year was the "Public Art Committee"—has issued its first report. It seems that on Nov. 2, 1903, the City Council unanimously passed a resolution authorizing the Mayor to appoint, from "lists of names supplied by public organizations that are at work for the betterment of the city," and subject to confirmation by the Council, a Public Art Committee of five, "including one or two women." Its status was to be "semi-official, with a view to its possible incorporation into the city charter at some future time, after its usefulness has been clearly demonstrated." The committee was not invested with any executive power, nor provided with funds, and could act only in an advisory capacity, making recommendations and exerting such influence as it could to have them carried out by the various legislative and executive bodies of the city. The Commission in its first report urges a vigorous enforcement of half a dozen existing ordinances; urges new

action against the poles, billboards, and unsightly vacant lots; offers more than a dozen positive endorsements and recommendations—including, in the architectural field, the construction of an Art Gallery, a Public Library, and an Archaeological Museum; and calls attention to certain accomplishments of which it has approved during the year. It has displayed real Western energy, and would appear very promptly to have justified the experiment.

**OPENING
MUNICIPAL
MUSEUM**

The formal opening of the Municipal Museum of Chicago, which took place on February 23d, was marked by a reception at which addresses were made by Mayor Harrison, Theodore Lewald, the Imperial German Commissioner General to the St. Louis fair; Jane Addams, Edward B. Butler, Robert R. McCormick, and Prof. George E. Vincent, the president of the Museum. Though the Museum is designed to be ultimately a "permanently comparative municipal exposition (an exposition of processes, a living force making for a better understanding of all the problems of city making)", it was opened with a loan exhibition. This lasted for a month, and was largely drawn from the St. Louis Exposition. It included a large collection from the Municipal Art Society of New York, many exhibits from American cities (including New York) and from European, and from architects, landscape architects and others, whose work is of public significance. The permanent collection is devoted especially to the city of Chicago, apparently leaving still unoccupied an opening for an immensely valuable Municipal Museum of national, or international, extent.

**THE
AMERICAN
CIVIC
ASSOCIATION**

The American Civic Association takes in good part the comments recently made in these columns on the beginning of its work. Quoting in its clipping sheet a portion of the article, which it declares "inspiring because critical," the Association announces that it "is prepared to devote itself thoroughly and heartily" to the work now mapped out, if it has sufficient support both inside and outside its membership. It makes the somewhat surprising statement that the merger of the two national organizations for civic improvement has resulted, not in economy as had been expected, but in

a larger expense, owing to the adoption of "more systematic" and therefore more costly, methods of work than had been heretofore adopted. It therefore finds the two most pressing problems now before it to be "the proof of positive usefulness" and the raising of the funds necessary to promote such usefulness. We must hope that both problems will be satisfactorily solved.

**ORNAMENTAL
TROLLEY
POLES**

There comes from a manufacturing company an announcement sufficiently notable and encouraging to merit comment at nothing a line. This is the production of an artistic (!) trolley pole. The underground trolley is doubtless the ideal of the civic art reformers; but except in New York it is far removed from immediate realization. Meanwhile the crude bare poles in general use are among the most notable disfigurements of American city streets, marring many a handsome building and mocking the expenditure put upon rich facades, against which they show conspicuously in all the immediateness of an essential foreground. Few architects who have put up good buildings have not been conscious of discomfiture by this stolid parasite of the public way—unimaginative, unambitious and ineradicable. The tipsy poles that show black against the Public Library in Boston are a sufficient example. Though probably—and that fact is perhaps of encouraging significance—without civic art ideals, the Phoenix Iron Works Corporation in Hartford, Conn., has obtained from an architect of national reputation drawings for a good pole, and from these it has made castings of an ornamental base and cap to which the trolley or light pole can be fitted. It is probably too much to hope that such an improvement will be at once adopted generally throughout the cities, as one finds it in Europe; but for show places and in front of good buildings it ought to find a ready sale. At all events, it is encouraging and notable that a corporation has thought it worth while to manufacture these castings.

**THE
CHARLES
RIVER
IMPROVE-
MENT**

Although it is well known that the letting of the contract for the work on the splendid Charles River improvement in Boston has been followed by a vigorous beginning of construction, it will be a surprise to most readers to hear that the Commission was able, during the recent leg-

islative session, to present its second annual report; and that in the year ending September 30, 1904, it had spent \$50,000. All this means, not a squandering of public moneys, but that careful laying of foundations which



DESIGN FOR TROLLEY POLE.

has made possible rapid progress, once the more formal constructive work was undertaken. This Charles River improvement—a scheme of European breadth and daring in the center of a closely populated community—is of so much interest, both in itself, its American novelty, and its valuable suggestiveness, that those who are interested in observing the physical development of American cities are watching it attentively. At a State House hearing in the winter, it was estimated that the cost to the city of Boston of building the retaining wall, filling in, and developing with

walks, drives, and landscape treatment the embankment, from Cambridge bridge to Charlesgate West, would be between \$500,000 and \$600,000, without including possible land damages. This practically extends for this distance the present Charlesbank (park), in widths ranging from 100 feet behind the houses on Beacon street to 300 feet at Mt. Vernon street. Subsequently, a plan has been developed for tunneling Beacon Hill and building, with much economy, under this embankment a new subway to Brookline and the Western suburbs—in interesting evidence of how one city improvement waits upon and dovetails with another.

CHARLES GOODYEAR

The fine statue of Charles Goodyear by Mr. Tonetti, which was designed for the St. Louis Exhibition is the first memorial of the inventor which has ever been seen in public, aside from two portraits by Healy, one of which is on loan in the Brooklyn Museum. Considered as an attempt to embody in form the pertinacity, spiritual exaltation and firm purpose of this great man the statue must be considered a brilliant success. As far as the mere facial portrait is concerned the painting from life in Brooklyn, by Healy, is naturally a superior record to the statue made some forty-eight years later, but considered as a projection, by means of attitude and bearing, of the spirit of the man, Tonetti's statue is most satisfactory and deserving of all the celebrity and attention which the statue of so great a man ought to enjoy.

As the only surviving son of Charles Goodyear and as the only person in the world who can now be called upon to say something of his personality and worth from the standpoint of personal contact and personal memory, it has fallen to my lot to add to the expression of my sincere admiration for Mr. Tonetti's work some memoranda of the personality which it commemorates; and under the circumstances it may surely be excused if these memoranda to some extent take the form of personal impressions and recollections.

It is a matter of record that this man who was born in 1800 and who died in 1859, gave to the world a new material, which, having alternately the general consistency either of leather or of Ivory, added to the qualities of the former those of elasticity (if desired) and of impermeability to water and dampness, and which added to the qualities of the latter those of economic availability and unlimited

supply. Hard rubber is practically an ivory which can be produced cheaply and in objects not limited in use, size, and number by the great cost of an elephant's tusk. How is this ivory obtained from the gum of a South American tree? Rub your fountain pen for a moment and note the odor of sulphur which results. This sulphur is the ingredient which is essential to "vulcanization," the discovery of Charles Goodyear. Otherwise the process consists in the application of heat, and the double discovery was this, that whereas a certain degree of heat melts and ruins the gum, a greater degree of heat (with sulphur) transforms it into a new compound which is either hard, solid and elastic, or soft, tough and elastic, as may be desired and according to the heating process.

The problem of the early india-rubber industry was to prevent the melting of the manufactured fabric by summer heat. The solution of the problem was—more heat. This astonishing and paradoxical solution was not reached either by guesswork, intuition or scientific chemistry (which had abandoned the problem), but by pure persistence and dogged determination in the matter of experiment, in the face of more disasters, disappointments and failures and of greater consequent public neglect, contempt and indifference than have ever fallen to the lot of any other man, as far as known to literary record (and lasting for ten years, 1834-44).

Although it is the vulcanized hard india-rubber which has been mentioned first, it is the vulcanized soft india-rubber which is now most indispensable to man, as found in shoes, mackintoshes, tubing, packing and belting for machinery, etc., "cloth impervious to water, paper that does not tear, parchment that does not crease, leather which neither sun nor rain can injure." Of all applications of india-rubber, that of packing for the steam-engine and connected machinery appears to have been the most important, as it has been an essential condition of the development and extended use of steam as a motive power.

It was the distinction of Charles Goodyear, not only to create a new material but to have also created the numerous industries of its applications, and it is here that his title of inventor applies. Vulcanization was a discovery, achieved by persistent experiments of years' duration, but still actually due to an accident quickly noted by the inspired genius. It was therefore not an invention, but the processes, machines and devices by which the gum, as vulcanized, is now converted into a fountain-pen or a coat, were inventions and the whole enormous industry based on these inventions as it exists to-day is practically the creation of one man. It is

matter of record that, with rare exceptions, all the extensive applications of india-rubber (and there are over two hundred of them) were devised, launched and financed by Charles Goodyear up to the point where any other business man or manufacturer could do the rest, and at that point he always stopped, and at that point he invariably be-



FIGURE OF CHAS. GOODYEAR.

F. M. L. Tonetti, Sculptor.

gan to develop a new application. He never was a manufacturer in the strict sense, or beyond the early days when manufacture was the only means of earning money for experiments. He was never a manufacturer for gain and never belonged to any of the so-called "Goodyear Companies" in all of which the name was simply a trade-mark. Nor has any member of the Goodyear family since his death ever been in the india-rubber business, in spite of the wide diffusion of the name as a trade-mark.

It lay within Goodyear's power, at any time after 1844, to identify himself as a manufacturer with some one of the great industries which he successively launched, and to share by this activity more largely in the enormous profits which these industries produced under protection of the patent laws. His greatest glory is not that he discovered vulcanization, but that having discovered it, he scorned the wealth which the discovery created, excepting in so far as it helped him in the nobler task of continuing to create new industries.

All opinion to the contrary, Charles Goodyear was a rich man after 1844, rich for those days, and rich enough, if the expenditure of thousands, up to some fifty thousand for some single given enterprise (like the Paris exhibit of 1855) can be considered as indicating riches. Each successive application was developed, engineered and financed, up to the point where it became a business proposition for the world at large. Then it was sold for a bonus and a royalty. Thus did the man create several successive fortunes and thus did he successively and inevitably spend them. How could the accusations that he was extravagant and a spendthrift have been otherwise levelled at him, for his private life was notoriously moderate, temperate, and frugal. Spendthrift he was, and a right royal one, for thousands on thousands of dollars were devoted to the creation of new industries. The lawyers, too, came in for their share, as witnessed by his \$25,000 fee to Daniel Webster in the suit at Trenton in 1852, and this was a heavy fee at that date.

The glory of Charles Goodyear lies first, it is true, in the stoicism with which he underwent privation and starvation, but it is his greater glory that, having known the bitterness of want, not even the memories of those bitter years could prevent him from devoting his entire income to the creation of this new industry. It is this wholesale scorn and indifference for social distinction, show, luxury, and material ease and comfort, this grand contempt for money except as a means to one single end, that makes him a unique figure. A puritan Monte Cristo in temperament, at one and the same time creating and despising wealth, he went through life from 1814.

To this be it added that no word of theory, or self-announcement, or of detracting of others for money-getting ever passed his lips. To the looker-on the facts show that he had but one use for money, but to the listener there were no doctrines of self-abnegation, of the vulgarity of luxury, or the emptiness of show, and no propositions regarding the philanthropic duties of other

men. Neither was the man, in the days of success, unduly parsimonious or frugal. In London he kept his brougham, although it often pleased him to put the coachman inside and take the box for himself, a proceeding significant of his absolute indifference to conventional appearances. But in such matters he also had no theories.

His dress was always neat, his large dressing gown was of rich red velvet, as is shown in the Healy portrait in Brooklyn. He was lavish with presents, overflowing with bounty to poor relatives and dependents, and adored by his servants. In literature he mainly, but not wholly, confined himself to the Bible. In politics he was a Southern sympathizer and a conservative.

His frequent attacks of gout or of acute dyspepsia made the services of a body physician who was attached to the household, advisable after his return to America in 1858, and he did not stint this expense. A valet or other personal attendant was habitually attached to his household. He made it a practice to own houses rather than to rent them, selling them again as he moved from place to place, and he rarely remained more than six months in one place. Thus one may quote for the six years in England (52-58) houses in Bath, Ventnor, London, Norwood and Sydenham, and in America (58-59) houses in New Haven, New York, and Washington.

The only theory that I ever heard him announce was that it was a mistake to leave money to children. He did not entirely live up to his principles, and although his estate was somewhat involved at the time of his death as the result of foreign litigations, it must have been ultimately worth, after all royalties were paid in, some two hundred and fifty thousand dollars.

One of the most signal indications of the man's independence of character was his refusal of the offer of half the English Mackintosh rights on the ground that the whole belonged to him; as by priority of discovery, though not by English law, it probably did.

The Charles Goodyear described here is not the Goodyear of 1834-1844. My knowledge of those days of frightful want, not induced by original or necessary poverty but by reckless devotion to a purpose held vain and foolish by all sane persons, is like that of other men, wholly literary. Neither is this Goodyear entirely that of later years as known by other descriptions, involved in business troubles and financial difficulties, dying in want and unrewarded by men. Rewarded he was, and nobly. He had his own way, and how many can say that? A man who was never down on his luck, never despondent, and never idle; whose family life was never

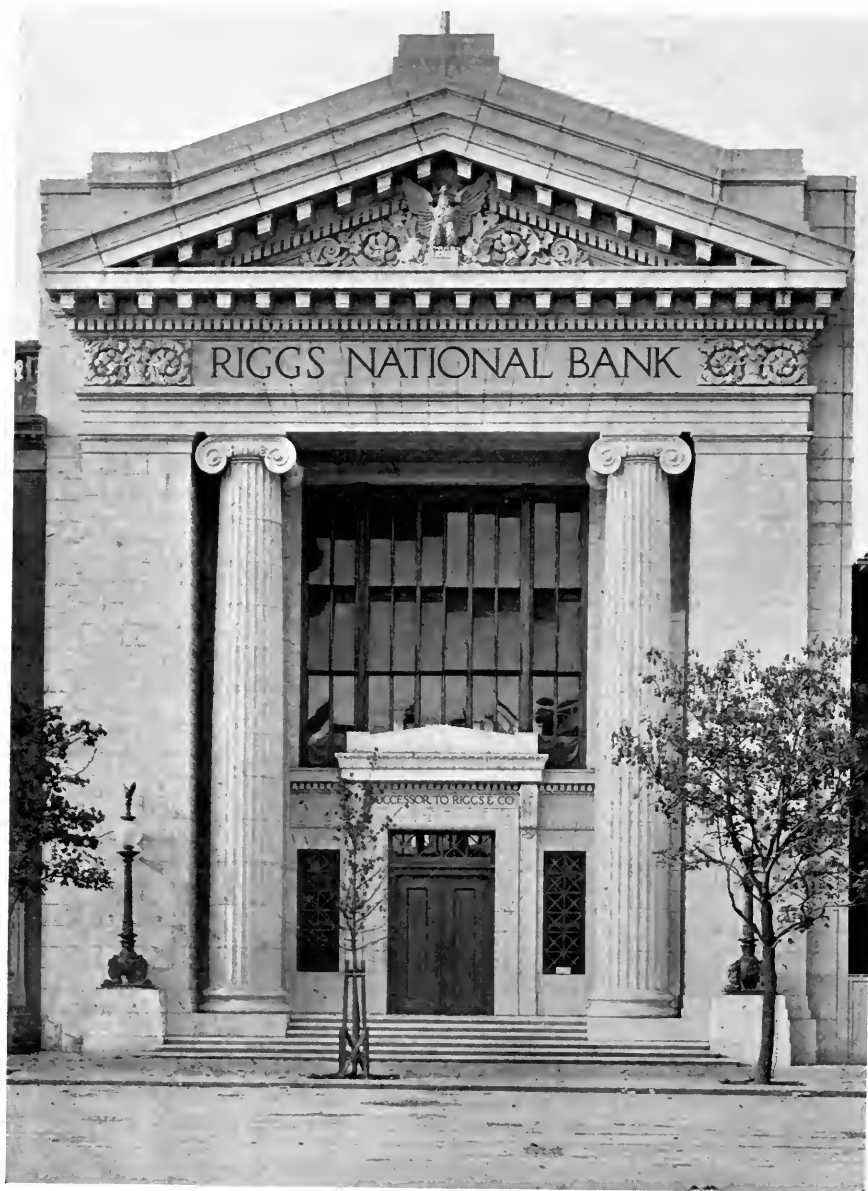
crossed by a shadow, excepting that of death; who was upright, pure, simple, truthful and who never had an enemy outside of business antagonists, such was Charles Goodyear. In the statue of Mr. Tonetti one sees the practical dreamer, the resolution of a firm idea, the valiant triumph over obstacles, the victory of determined persistence, and the far-seeing wisdom of a wholly unselfish man
W. H. G.

DESIGNS FOR MOTOR CARS

It is interesting that business firms find it profitable in the economical transaction of their business to call upon artists and designers for an increasing variety of services. Of course the firms whose demand for the assistance of designers is most imperative, are those connected in one way or another with the finish of buildings; but the building trade is far from being the only one in which their help is needed. An illustration of this fact may be found in the publicity which a manufacturer of motor cars in Buffalo is giving to his desire for good designs for the body and the color scheme of automobiles. This firm advertises in another column that a number of different prizes will be given to designers who work out shapes for different types of cars which will be both thoroughly practical and unimpeachably good looking; and it is much to be hoped that he will succeed in eliciting some good designs. There is certainly room for improvement in the appearance, particularly of American cars.

THE RIGGS NATIONAL BANK

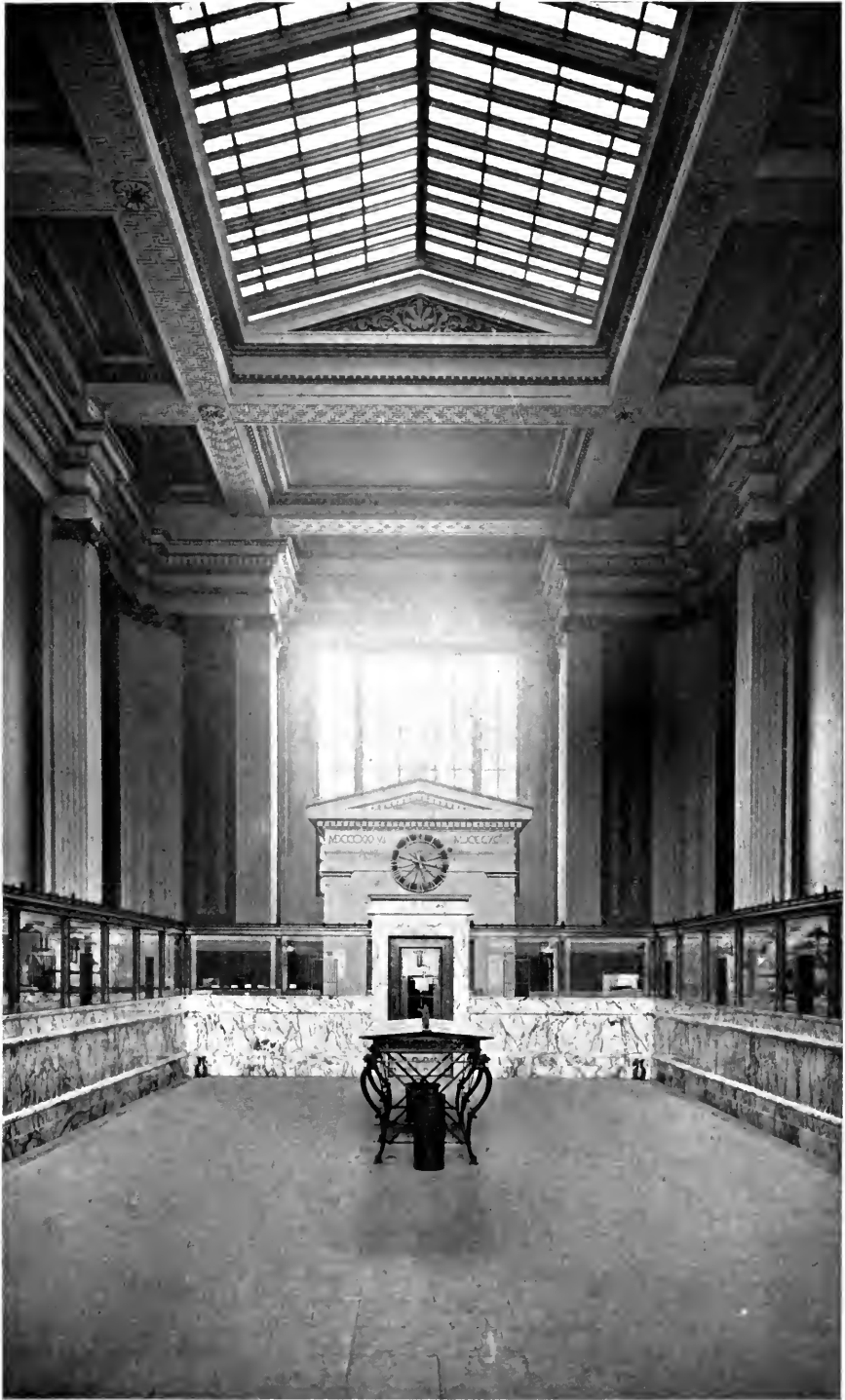
The Riggs National Bank in Washington, which is illustrated herewith, is an excellent type of the bank building which is now being erected in the different cities of the country. Our wealthy banks are coming more and more to build offices exclusively for their own use; and the fronts of these structures are generally designed in a severely classical way—with piers and colossal columns surmounted by a pediment, and exhausting the whole height of the building. This type of design is institutional and it develops naturally out of a plan which includes as its chief element a large and well lighted counting room. It is coming to prevail even in large cities like Boston and New York, where land is so valuable that taller buildings are justified.



THE RIGGS NATIONAL BANK.

Washington, D. C.

York & Sawyer, Architects.



INTERIOR OF THE RIGGS NATIONAL BANK.
Washington, D. C. York & Sawyer, Architects.



THE BROOKLYN EAGLE BUILDING.

Brooklyn, N. Y.

INTERIOR FIREPROOFING.

[The following is the seventh of a series of Technical-Industrial Reports upon a certain System of Fireproofing, made to the Manufacturers by the well-known expert on Building Construction, Mr. William J. Fryer.]

Dry Mixtures and Wet Mixtures

The Hecla Fireproofing material, composed, as it is, of a mixture of magnesite, a mineral, and chloride of magnesia, a fluid, with a fibrous material, such as

excelsior, through the mass so that the product can expand or contract without warping or cracking, is a "dry" mixture. The chloride of magnesia is the setting material when added to the magnesite, and quickly converts the mass into a light, strong, stone-like substance. There is no water to be expelled. Cement concrete, cement mortar, lime mortar, and the like are "wet" mixtures, and after a building is completed tons of water remain to be slowly evaporated. Until the drying-out process is complete a building is not healthful for human habitation. In one sense brick have to be included in the category of wet mixtures. In warm weather brick are well wet before being used; and this is to prevent the brick from too quickly sucking up the water in the mortar when laid in place. In cold weather brick are wet but slightly, or not wet at all. Brick left exposed in freezing weather will absorb rain water and freeze, and although subsequently appearing to be dried, wind dried on the outside, yet on breaking one of the brick the frost, not to say ice, will be seen extending in fairly to the center; such brick have no absorbing qualities, and the frost will thaw out in due time. In localities where the weather alternates frequently from extreme cold to quite moderate, ordinances in many cities forbid the building of walls and piers during freezing weather, and if frozen require that they shall be taken down and rebuilt. The freezing point is commonly understood as 32°. In the city of New York the Building Department seems to have arbitrarily set twenty-four degrees above zero as the lowest point for work. During the past severe winter brick were laid in some cases when the thermometer registered nearer ten than twenty-four degrees, and when the hands of the bricklayers were so benumbed with cold that it was impossible to make proper joints in the brickwork. In their haste many builders not only did that which the building code forbids them to do, but they went contrary to common sense and their own best interests by imperilling their own money, not to speak of other people's lives, by building in a positively dangerous way.

A Vast Field for Meritorious Productions

The Hecla Fireproofing material does not seek to displace brick walls, nor in any other direction to encroach where brick work is commonly used. The

field for its advantageous use is a vast one, and will so appear to all thinking architects. Trade enmities are therefore neither sought nor desired. There is room in plenty for all meritorious productions.

Downfall of Buildings

As a consequence certain walls of nine tenement houses that were in course of construction fell in ruins in March last, during a heavy rain that signalized the de-

parture of Winter and the entrance of Spring, and as a further consequence the walls of some two score or more buildings that were erected during the cold weather were officially condemned as unsafe. There may have been a number of contributing causes to account for the fall of some buildings and not of others which were done during the freezing weather; but the one evident mistake was the laying of brick in freezing weather. In weather that freezes and thaws alternately, a process of nature will impair, if it does not destroy, any wall construction. Where continuous freezing weather extends over a long period the results are not so bad. The collapsed buildings were of a class where the services of an architect are not desired beyond the making of the plans and obtaining official approval therefor. It does not necessarily follow, however, that the services of an architect as superintendent of the work are an absolute guarantee that a wall will not collapse from the effects of freezing and thawing. My first experience in this direction came in 1871 as an iron contractor in connection with a large warehouse building erected on Lafayette place, running through from Broadway. A long gable wall of the new building collapsed from the cellar to the roof, carrying down one section of the floors for the entire length and height. The direct cause of the collapse was the thawing of the frozen earth mixed with snow and ice that had been used for the outside filling along an embankment of earth, and thereby the foundation wall was forced inwards. In that case the architect was the superintendent, a

man of recognized ability and prominently connected with the American Institute of Architects. As he was gathered to his fathers some years ago, no harm can now come from mentioning these facts.

**Hecla
Fireproofing
in a Notable
Building**

In the "Record and Guide" of March 25th, there is an illustrated article headed "A Remarkable Piece of Work," referring to the Jefferson Medical College Hospital in Philadelphia, Pa. The architect is Mr. John T. Windrim, former Supervising Architect of the U. S. Treasury Department. The building is devoted to science; it is also, from the point of view of construction, a scientific building. After a very careful investigation, Mr. Windrim adopted very extensively in this building the Hecla Fireproofing. The window frames and sashes are constructed of this material. The main staircase is likewise constructed of this material, after the method shown in the accompanying illustration. The seats in the operating theater are also made entirely of this material, in one monolithic piece without joints or seams, as here illustrated. Some two hundred doors in the building are made

of this material, and it is worthy of mention that all these doors are flat surfaced, without panels or mouldings, thereby insuring perfect sanitation and freedom from dust and microbes. Mr. Windrim stands in the front rank of architects in respect to extended experience and ability both as a constructor and designer. In this notable building, of his is a practical demonstration of the extraordinary excellence and value of the Hecla Fireproofing material.

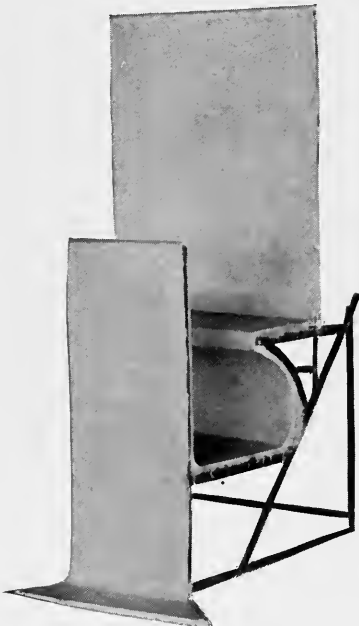
**Problems
Solved**

The experimental stage with this material has long since been passed. In many buildings where cost was no object, the best thing being required, like the St. Regis Hotel in New York, which is the most expensive building, per square foot, ever erected in this country, and where the architects were practically uninstructed in their selection of materials, the Hecla Fireproofing is in use. The problems that have given architects the most trouble, namely, what material to adopt for doors, window frames and sash, trim, stair-treads, and other interior work in important structures, have been solved and every requirement met by the

"HECLA FIREPROOFING"—PATENTED.
The System of Real Fireproofing.

The Hecla Iron Works,

Brooklyn, N. Y.



Model of Seats.



Model of Stairs.

THE ARCHITECTURAL RECORD

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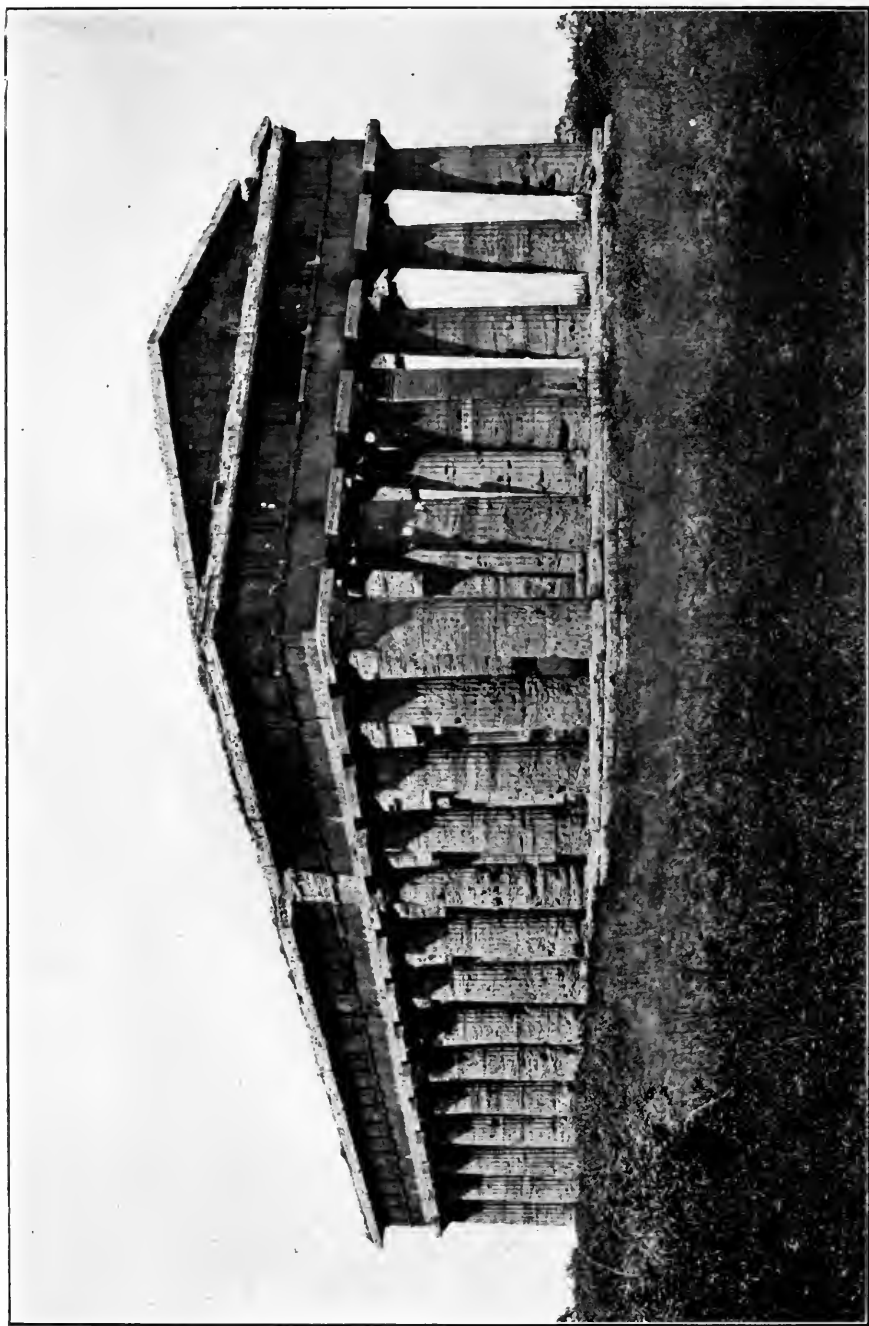


FIG. 1. THE TEMPLE OF POSEIDON AT PAESTUM.

The Architectural Record.

VOL. XVII.

JUNE, 1905.

No 6.

The Greek Temple.

Our architecture came in the first place from Greece. Egypt, Assyria, Persia, India and the Far East have had but slight influence upon it, compared with that wielded by the small, arid, mountainous country where, nearly three thousand years ago, men made, in the domains of art and thought, investigations and experiments which are of immediate and direct value to us even today. One cannot reflect upon this without a feeling of astonishment. It shows us the closeness of our connection with the people of distant ages, the community that exists, in spite of seeming differences, among the human species on our planet. A well-conducted experiment performed at one spot on the earth and in one hour of time can be of use to the whole world and through all the ages. The Greeks of the sixth and fifth centuries B.C. made such an experiment as this, when they thought of a certain form of temple with columns, and laid down certain rules for its construction. And we of the twentieth century turn to the subtle-minded Greeks of twenty-four hundred years ago, when we have to deal with a problem in architecture and want to know how to solve it with elegance and precision.

How peoples of artistic endowments solved problems in architecture is just what we purpose examining here in a series of articles, in the course of which we shall evoke before readers of the

Architectural Record the typical edifices of different periods. We shall see that the problems vary according to the prevailing economic, social and moral conditions of the peoples; but that, running through this diversity, there is a method which can be detected by analysis. We shall show that with architecture it is not the same as with tastes and colors, which one cannot judge of; that, on the contrary, it has rules which can be defined and which hold good now as firmly as they did twenty-five centuries back, however different may be the conditions of life in our time from those of the Greeks of the sixth century B. C. In order to trace these rules it is sufficient for us to put ourselves into the state of mind of the men of olden times. This is not impossible to anyone possessing the historic sense, the critical temperament, coupled with a little imagination. We therefore invite our readers to join us in becoming, in spirit, Greek or Roman, changing by turn into Byzantines, Frenchmen of the thirteenth century or Italians of the fifteenth. We will live successively in each one of the periods in which the genius of man has manifested itself the most brilliantly. To contemplate and comment upon works of beauty would in itself be an adequate object; beyond that, we shall extract rules of present value to ourselves—rules which might guide an architect entrusted with the erection of a sky-

scraper on Fifth Avenue or a national monument in Washington.

* * *

Of the domestic architecture of the Greeks nothing whatever remains. In ancient Greece, private houses never had much architectural interest. A citizen of Athens or Sparta was too busy with state affairs to spend much time at home; he wanted to be in the public place where he could find his friends and fellow citizens. Moreover, the cli-

mate allowed him to live in the open air during the greater part of the year. It was on the *agora* that the citizens assembled in public meeting. It was there, from a rostrum, that the orators harangued the crowd (hence the need of a good voice and a clear enunciation; hence, too, the famous pebbles of Demosthenes). It was in the open air that Socrates and the sophists held their discussions, alongside the Ilyssus, under the plane-trees, or on a public place. It was in the Academy gardens that Plato platonized, and in open-air gymnasiums

that the youths practised their athletic games. There was no *raison d'être* for a domestic architecture with such a people and in such a climate. It is not necessary to have palatial administrative buildings for governing a people that lives in the public places. Besides, what significance would the term comfort, which is so full of meaning to us twentieth-century westerns, living in cold, damp climates where fog, wind and rain prevail during half the year—what sense, we ask, would this word have for



FIG. 2. THE TEMPLE OF POSEIDON AND THE BASILICA, PAESTUM.

mate allowed him to live in the open air during the greater part of the year. It was on the *agora* that the citizens assembled in public meeting. It was there, from a rostrum, that the orators harangued the crowd (hence the need of a good voice and a clear enunciation; hence, too, the famous pebbles of Demosthenes). It was in the open air that Socrates and the sophists held their discussions, alongside the Ilyssus, under the plane-trees, or on a public place. It was in the Academy gardens that Plato platonized, and in open-air gymnasiums

the robust Greeks of the fifth century B. C., whose children Aristophanes pictures to us on their way to school, bare-headed, in spite of the falling snow, and singing as they go.

A consideration of the ideas helping to form society in ancient times shows that there were certain notions touching divinity, a certain conception of the reverence due to ancestors and the sacrifices to be offered to the gods watching over the community, and that the place which originally brought men together and resolved them into society was a

place of worship. First, religion brought about the grouping into families, and then it united the families inhabiting the same corner of the earth so as to constitute a people. The temple, therefore, held a place in society which it has since lost. It was the concrete symbol of the mysterious tie which brought a group of men together and differentiated them from neighboring groups. Thus it was that, at first, the gods were local and different. The Delphic Apollo belonged exclusively to Delphi; the Pallas of Athens was adored only by the Athenians. For a long time, none but the inhabitants of a city could join in the religious festivals of that city, as the gods were hostile to strangers; and the conception of a pan-Hellenic Zeus, adored at Olympia, is not primitive, but one of late date. It was the possession of common ancestors that, in antiquity, constituted a people, and the worship of the gods of his ancestors that constituted the first religious duty of the citizen. Hence the temple, the monument *par excellence* of Grecian architecture, around which, at the great festivals, was centered the whole life and soul of the city.

Such were the moral causes from which issued the Greek temple. We shall now trace the economic conditions, and also, the artistic sentiment, which made it what it was.

* * *

We have in the first place to look at certain simple facts. It is, by the way, the little facts—those which we might think could be ignored—which are, in reality, the most important and the most decisive. If we seek the reason why architecture flourished to an unusual degree in a particular country, we shall find finally that it was a question of materials and transport facilities on the one hand, or of labor supply or some such practical consideration, on the other: that is to say, points to which the modern architect, loaded with theory, acquired in a Fine-Arts academy, attaches hardly any importance.

The primitive architecture of the

Greeks was an architecture in wood. This is beyond doubt, although the contrary doctrine has had, we believe, some intelligent supporters. It is equally certain that the shape of the temple was taken from the great hall of the king's palace. The term "king" must not, however, be understood here in its modern sense. "Lords of the Manor," or "gentlemen farmers," would pretty closely describe the "kings" of Ancient Greece. The columns of the said hall were in wood; the columns of the primitive temple were also in wood. All the essential features of the stone temple can be traced back to the wooden temple. However, our present purpose is not to dig down to the origin of these features, but to examine the Greek temple as we find it.

The Greek temple was extremely simple. One must put aside all modern ideas regarding churches and their use. A church is now—and, indeed, has been ever since the beginning of the Christian era—a closed place where believers worship; where the congregation follow the different ceremonial acts, taking part therein by singing and by their responses, and listening to the address which the priest delivers from the pulpit. For Christian or Mahommedan worship it is necessary, therefore, to have spacious roofed halls, capable of sheltering a large number of persons during the hour or more that the services last. In ancient times it was not at all the same. There were no ceremonies inside the temple, and the worshippers were not allowed to enter it. Within, there was nothing more than a statue of the god or goddess to whom the edifice was consecrated. Only the priests could go inside the *cella* which contained the god. The people took part in the worship by attending the sacrifices which were offered up in the open air in front of the temple. They went there in procession on feast days, carrying flowers and wreaths of leaves.

Consequently, the problem which the Greek architect had to solve was the following: provide a *cella* for the god's

statue; this *cella* to be the central part of a building of monumental appearance which shall embellish the city and be a source of legitimate pride to the inhabitants, and around which they can come in procession on holidays. This was a very simple task, so much so that a modern architect would scorn to undertake it, or would only accept with

a colonnade carried all round the temple will make the building more ornate, while the space thus covered in will be available for the popular processions on festive occasions and enable them to move about along the outside of the *cella*. Next, in order that the temple shall be higher and stand forth more prominently, he constructs, on a contin-



FIG. 3. INTERIOR OF THE TEMPLE OF POSEIDON, AT PAESTUM.

the firm resolve to utilize the resources of his art to enliven the plain, dry scheme submitted to him.

The Greek architect falls in with this program in all its simplicity. A *cella* is wanted, so he constructs an oblong chamber; then, on the front, he extends the lateral walls and supports the roof by means either of two or four columns between these walls. This suffices. However, he observes the excellent effect of the portico columns, and concludes that

uous stone perron, a stylobate, which is reached by ascending a few steps. He covers the *cella* with a roof having two slopes, to run off the rain-water. The angle of the two slopes, cut on the façade, forms a triangular fronton—a large empty space, admirably adapted to receive a sculptured decoration.

The foregoing describes the essential features of the Greek temple. It is not complex. All it amounts to is: columns, supporting an entablature into which

are fitted the beams of the roofing; the plain walls of the *cella*, and a wooden roof, covered by marble or terra cotta bricks, with a double slope. There is no difficult problem involved; very little strain is put upon the materials, each stone having to bear only a third of the weight it is capable of bearing; there is no vault, no oblique pressure, as the loads bear perpendicularly on the columns, and no sinking or deflection is to be feared.

How then was it possible to put so much art into the execution of such a simple work? To understand this, one must take a temple and examine it closely. It is ready to impart its secrets to him who studies it attentively. Unfortunately, the hand of time—and that of man—has been unkind to the Greek temples, in spite of their having been built to last for ever. We know that the Parthenon was wrecked by the explosion of a Turkish powder-magazine, only the end columns remaining. In more recent times, the English have torn down all the sculptures and carried them from beneath the sunny Attic skies to the fogs of London. Other famous Greek temples were destroyed by barbarian invaders, and their remains are being sought for to-day underneath deep masses of ruins. Earthquakes caused the destruction of the Sicilian temples, while the famous sanctuary of Diana, at Ephesus, was set on fire by a madman named Erostratus, who wanted his name to be celebrated and descend to posterity, and succeeded. What is left of all those masterpieces? There is only a single temple still standing and, architecturally speaking, in a fairly complete state, and that one not in Greece but in Italy, viz., the Temple of Pæstum, situated a score of miles south of Salerno. Let us then go to Pæstum and see how much is left of the best-preserved Greek temple in existence. After having examined these remains we will, with the help of the numerous pieces of evidence collected by contemporary science, reconstitute a typical Greek temple of the same period—that is, the end of the sixth and beginning of

the fifth centuries B. C.—in all the splendor of its decoration, painted and sculptured.

* * *

We give here an extract relating to Pæstum taken from a traveler's notebook, a whole chapter of analysis not being worth so much as one page recording the emotions experienced in presence of such an edifice.

"The Temple of Poseïdon at Pæstum was erected at the end of the sixth century B. C., by some Greek adventurers who had left their country and crossed Charybdis and Scylla in order to settle on the smiling Calabrian shores. They raised this temple, at the waterside, to Poseïdon, protector of their frail barks. The town which it defended from the possible wrath of the god has disappeared; brambles cover the now deserted plain; around the edifice silence and fever reign; even the sea which washed it having abandoned it; yet still it rears itself, despite the ages, in the perpetual youth of its first simplicity.

"The walls of the *cella* are in ruins; only the forest of sturdy columns remain, supporting the massive entablature and the abased frontons. The stone, polished and tanned by the sea breezes, which have impregnated it with salt, has acquired yellow, coppery shades that stand out from the azure horizon of the sea and from the sombre background of mountains.

"We seated ourselves on the ruins of the ramparts, near what was once the city gateway. Heavy clouds passed across the heavens, occasionally hiding the sun and covering the landscape with their shadows, as though the serene skies of other days had gone forever, not being able to survive the oblivion into which the ancient religions had fallen.

"Fever-stricken children and dogs drew nigh to pick up the fragments of our frugal repast of eggs and oranges.

"A great sadness pervaded these forsaken precincts.

"Under the portico of the temple three kneeling women were uprooting the weeds which had thrust themselves be-

tween the disjointed flagstones. They began a weird song, unlike any other; their voices were guttural and metallic; the notes dragged in a strange harmony, broken with wails abruptly interrupted, obscurely evoking the idea of grief and lamentations for the long-lost dead. The melody floated around the yellow stones as though caressing them. Presently a ray of sunshine pierced the clouds and

gods condemn him. And so we departed, with trouble in our hearts, for we felt that a divine spirit had been near us."

* * *

The accompanying photographs, Figs. 1, 2 and 3 convey an exact idea of the temple and its location. It is reached by three steps. It has six columns on the



FIG. 4. THE TEMPLE OF ZEUS AT OLYMPIA.

Restoration by M. Laloux—from the original in the Ecole des Beaux Arts, Paris.

all at once the bold structure of the temple seemed to become animated by the familiar cadences; the slumbering soul in this wasted but still magnificent body trembled at the call of its guardians, and the sanctuary was filled with the perfume of a far-off past.

"It was but for a moment. The trembling voices ceased one after another; the colossus fell back into his heavy sleep and continued the dream of solitude to which the exile of the true

front, and fourteen side columns, including the two corner ones. The columns consisted of cylindrical blocks. In still earlier times temple columns were monoliths, thus recalling the wooden columns—the primitive tree-trunk. The cylindrical shape was the most convenient, as it allowed the big blocks of stone to be rolled from the quarry to the site of the temple. It must be remembered that no good roads, nor any canals or railroads, existed. Nor was

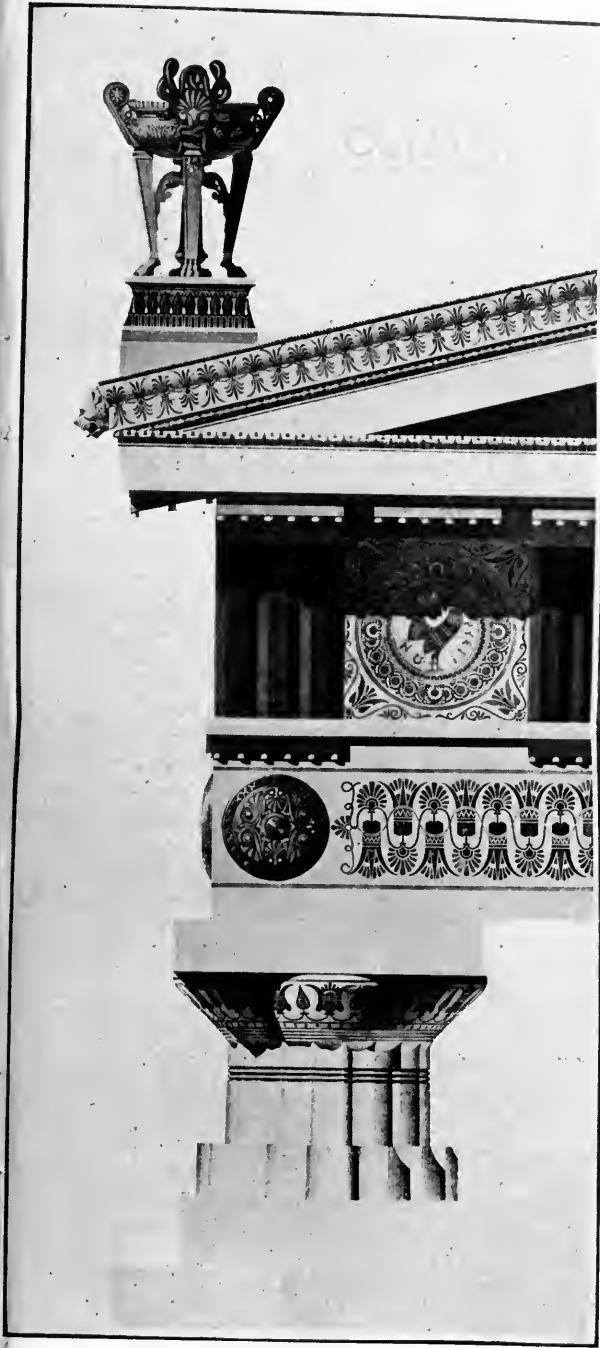


FIG. 5. ORDER OF THE TEMPLE OF ZEUS
AT OLYMPIA.

From the original drawing by M. Laloux in the
Ecole des Beaux Arts, Paris.

steel known to the people of those days. We may be sure that had they lived in the nineteenth century they would never have built the solid and imposing Temple of Pæstum. These cylindrical blocks were placed in position without mortar. The tambours, in many cases, were worn, by being rotated on beds of sand, so that the joints should fit exactly. As the Greeks intended their work to last eternally, the blocks they used were of enormous size, and every one of them was capable of carrying very much more than its weight. Besides, the weights were vertical and there were no pressures tending to cause the columns or the walls to deviate. There remained, however, the danger of earthquake shocks, which were very frequent in the Archipelago and in Sicily. To guard against these, the stones were fastened together by tenons, either in wood or metal, placed in the center of the columns. By this means the columns and stones were perfectly stable. Yet in spite of these precautions most of the temples of antiquity have suffered from earthquakes.

Above the columns, the entablature supports the roof. But in order to enlarge the surface of contact between the cylindrical columns and the entablature, the former are spread into capitals, which themselves bear a large square stone—the abacus, whose purpose it is to distribute the weight of the entablature over a still larger area. The entablature is composed of three parts, namely: the plain architrave, a platband of stone blocks running from center of column to center of column; above, the frieze, which comprises a series of metopes (which are merely plain filling-in panels) alternating with triglyphs—stones with two vertical grooves, thus forming toruses in relief. Above the frieze the cornice projects with a reverse to prevent the rainwater from reaching the frieze and thence the columns; the lower face of the cornice being decorated with ornaments called “guttæ.” At the summit, a series of rounded tiles send the water to either side. Minute precautions are taken to stop it from

penetrating to the framing. Below, the water is drained away either by a gutter, as in the Parthenon, or by a row of collectors, each having a discharge orifice outside. The *cella* walls consist of

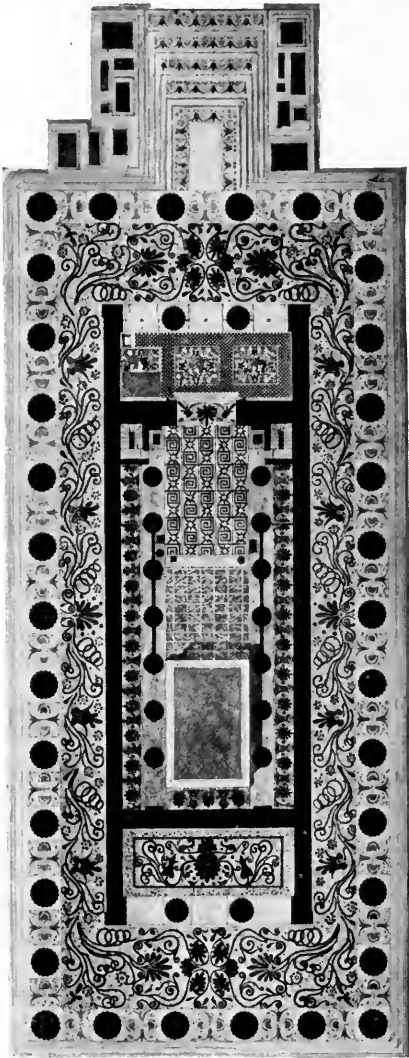


FIG. 6. PLAN OF THE TEMPLE OF ZEUS AT OLYMPIA.

From the original drawing by M. Laloux in the Ecole des Beaux Arts, Paris.

symmetrical courses of stone, without any mortar. By the way, the stones of the architrave of the Temple of Pæstum are laid on the breaking grain.

The foregoing description gives the

essential features of the Temple of Pæstum. As to its dimensions, they are: length, 190 ft; breadth, 85 ft. The columns are 29 ft. high and $7\frac{1}{2}$ ft. in diameter. It dates from the close of the sixth or beginning of the fifth century B. C., and is the most perfect example of the Doric order previous to the Parthenon, which, as we all know, was built about half a century later. The Temple of Pæstum is more squat, more thick-set; the fronton angle is more obtuse, the entablature higher and the columns shorter. To speak only of the most important differences, we would point out that the Parthenon is an octastyle—that is to say, a building with eight columns in front, whereas the Temple of Pæstum, having only six, is a hexastyle. It is a satisfactory thing that the two best Greek temples offer such marked differences, for this supports what we are anxious to emphasize, namely, that the Greek genius was a genius of freedom and invention, never having had fixed rules, to be followed absolutely in all their logical severity. There is not a Greek temple, but there are Greek *temples*, all differing from one another in dimensions—elevation, proportions, etc. Chronologically, the spaces have gone on increasing, to the detriment of the solid parts. In the case of the Temple of Pæstum the entablature is enormous, being three-sevenths of the height up to the roof.

* * *

The Greeks never had the idea that a work of art could be created by rule. They were realists to an eminent degree, and believed only what *their* experience taught them. (By the way, our Schools exist solely upon experiences they have not gone through—the experiences of others). For them, an edifice had to please the eye and satisfy their instinctive and imperious desire to be logical, and logic demands that the forms shall be appropriate to the functions; that, just as legs are intended for walking, so supports ought to have something to support.

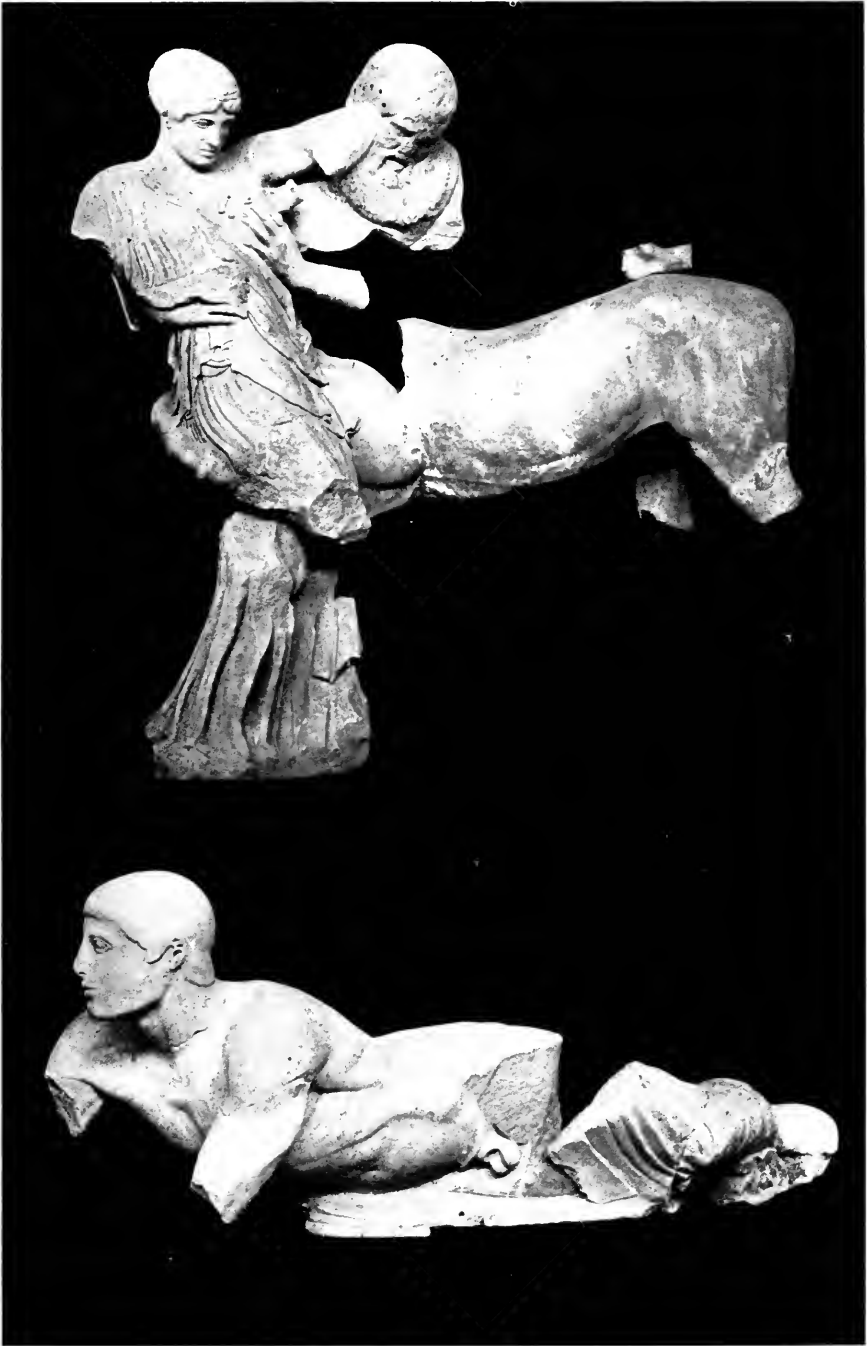


FIG. 7. FRAGMENTS OF SCULPTURE FROM THE TEMPLE OF ZEUS, AT OLYMPIA. The figures above are those of a Centaur and Deidamia, from the Western front. The figure below is that of the River Cladeos, from the Eastern front.



FIG. 8. RESTORATION OF THE EASTERN FRONTON OF THE TEMPLE OF ZEUS, AT OLYMPIA.

Let us first see how it is with regard to the appropriateness of forms to functions. The original Greek temple was in wood. Should we, therefore, have a copy in stone of the wooden temple? This would certainly be a great disappointment to those people who think that each material ought to be employed according to its laws and qualities. Now between wood and stone there is a wide gulf. If the Greek temple in stone were a copy *ne varietur* of the wooden edifice, all the modern dabblers in architecture would triumph, and be encouraged to go on putting up their wretched buildings, as to which nobody can tell whether they consist of steel, brick, dressed stone, cement or rubble, so artfully are they disguised and passed off as being what they are not. But as a matter of fact it is not the case. We shall demonstrate that the forms were brought into keeping in the most delicate and refined way with the new material employed.

Columns and an architrave! In the wooden temple the columns were placed with the larger part upwards. When the columns come to be made of stone the Greek inverts the capital, which, for him, is a form peculiar to this material. Above the capital he puts a square abacus, to bear the stone architrave. The natural form of this architectural item, in timber, would be, as Viollet le Duc so well points out, a beam, an elongated bressummer; nobody would dream of cutting out a flat, square block for this purpose. Hence, the abacus form is one peculiar to stone construction.

Primitive wood architecture allowed of long intercolumniations, and what we know of Greek constructions in this ma-

terial shows that the columns were, in fact, very wide apart. As stone does not warp like wood, the Greeks brought the columns closer together. So here also there is no copying, but an adaptation of forms to functions.

Above the architrave, the stone frieze again shows the original structure. There is no doubt that the triglyphs indicate, on the exterior, the ends of the wooden beams of the roofing, and that the metopes stand for the voids between the beams. But, in the stone temple, the triglyphs play a decorative part. Above the columns they emphasize to the eye the rôle of a support in the edifice. Moreover, so far are they from being an exact duplicate of the wooden beam that we see them figuring on the front of the temple, whereas the cross beams, which explain the triglyphs on the sides, are missing. The stone temple has retained, from the wooden one, the mutules, those small projecting blocks which are seen underneath the triglyphs. It is interesting to note the survival of this feature.

A very striking remark has been made upon the analogy and the differences between the stone temple and its predecessor in wood by a *savant*, M. Dieulafoy, who has observed that the system of roof framing of the latter differs entirely from our own. Properly speaking, the Greek framing is on the stacking system, the wood being piled up as one would pile up stone. Whereas the tie-beam in our framing supports a longitudinal strain and prevents the two principal rafters from getting apart, in the Greek framing, it bears a weight, through the medium of a king-post. Therefore, the work required of it is



FIG. 9. RESTORATION OF THE WESTERN FRONTON OF THE TEMPLE OF ZEUS, AT OLYMPIA.

to bear a weight, and not to serve as a tie. It acts as a long stone acts, and the beam must be of immense size to bear the load put upon it. As M. Dieulafoy says, the Greek framing is really masonry in wood.

This enables us to understand how easy it was to modify slightly the forms in order to have a stone temple in which forms and structure should be in harmony. The manner in which the Greeks, who began with wood, came to employ stone; the taste and ingenuity displayed by them in bringing forms and organs into agreement—all this deserves our deepest admiration and makes this study, into which we cannot go in detail, well worth the attention of everyone who is interested in the fundamental questions of architecture.

* * *

In constructing their stone edifices, the Greeks, who were reasoners and logicians, followed certain rules, and adopted, for each edifice, a certain fixed proportion. What does this mean? It means that the proportions of the different parts of the edifice are simple proportions, which can be reduced to a common measure. Take as an example the Temple of Pæstum, with which we are now dealing. The module is the mean radius of the column. This module measures three feet. The column is ten times the module, or say thirty feet. The distance between the axes of the columns is five times the module, say fifteen feet. The total height of the entablature is also fifteen feet, the width of the abacus is three modules, equal to nine feet. It is thus seen that all these numbers are multiples of three, which is

the module. In this manner the proportions of the different members of an edifice have a constant relation to each other.

It goes without saying that the module varies for each edifice; there is no single and absolute rule. For instance, in the Doric order the length of the column varies from ten to twelve modules; in the Ionic order from sixteen to twenty-one. The entablature of the Doric order measures five modules, and that of the Ionic only four.

Once these proportions were determined, the Greeks did not trust to calculation alone as regards the different parts of their building. They knew that an edifice was not an abstract thing, but a mass of stone surrounded by air and light, and that after having studied the proportions on the plan, it was necessary to study the architectural forms in the light of day. That seems very simple, but it is not. We shall see to what a high degree of refinement the Greeks carried this concrete and realistic study of an edifice enveloped by a certain atmosphere. Every scholar is familiar with what we are going to summarize here; but architects, who ought to apply these methods, are ignorant of them. They still believe that the sky and light of Attica are the same as those of Paris, London and New York. This is a grave error. Who are the architects of our day that trouble about these questions? So-called Greek and Roman edifices are built in London and Paris, and what an aspect is presented by those noble colonnades, coated with soot, under our fog-laden skies! In the United States the light is quite different from what it is in western Europe; it has



FIG. 10. SEATED FIGURES FROM THE EASTERN FRONT OF THE TEMPLE OF ZEUS, AT OLYMPIA.

the clearness, strength and freedom from half-tints, characterizing the light in Greece and southern Italy. Consequently the forms found by the Greeks are more in their native atmosphere in North America than in France, England or Germany. It is true that they do not correspond to present needs, but that is another question: we are speaking now of light and atmosphere.

The Greeks observed that a smooth column melted in the light and that its lines were vague and uncertain. In order to restore its definiteness they conceived the idea of fluting it. The sharp ridges of the fluting, catching the light, contrasted with the dark hollows, thus giving body to the column and emphasizing the vertical outline of the edifice; whence a double advantage. This discovery could never have been made on paper.

Then, as the abacus of the capital casts a shadow upon the top of the column, the junction of capital and column becomes indistinct. To restore the necessary effect, the Greek cuts several deep lines at the point of junction, and to emphasize them he paints them in a dark tone. Even the curve of the circular torus carrying the abacus is so designed that the bright light, striking upon the relief, shall fade into a shaded half-tint towards the hollow. Thus, as Viollet le Duc truly says, the Greek preserves, *even in appearance*, the forms which his reason tells him to adopt as being the best and most enduring.

"Even in appearance." This leads us to the subject of optical illusions, and we shall here see still more clearly that the Greek never let himself be guided by mathematical considerations, but observed and experimented directly upon the things themselves. He relied upon his senses, and especially his eyes, for the pleasure of which organs, in the long run, all things are intended. He thus noticed that cylindrical columns, when "dressed," appeared to be strangled in the middle. He therefore drew the lines of the shaft outwards. In the same way, the columns appear thicker or slighter according to whether they

stand out against the sky or against the *cella* wall, painted in dark red. The open air "eats" away the corner column; therefore, the Greek makes this column thicker than the inner ones of the front.

Again, the Greek diminishes the interval separating this column from its neighbors, because the eye requires a force at the corner of the edifice.

The Greek observes that the vertical columns appear to incline towards the void: thereupon he corrects the seeming fault by making them lean a little towards the interior of the building.

Similarly, the fronton is not vertical, but inclined outwards, for the reason that if it was vertical it would appear to retreat.

The horizontal lines of edifices—all our edifices—appear to bend in the middle and turn their concavity upwards. The Greeks, guided as they always were by the experience of the eye, followed their usual method by deforming the horizontal lines either of the architraves or of the pavements upon which the colonnades rested. These curves are very slight. In the 330 feet of lateral frontage of the Parthenon the deflection required is only about four inches.

In short, the subtle Greeks, avoiding a slavish adherence to strict modularity and mathematical proportions, deformed their edifices in order that they should appear symmetrical to the spectator. Thus, as the high parts of an edifice are seen foreshortened by anyone standing on the ground, it is necessary to increase their dimensions so that they shall *appear* in harmony with the lower parts. And this is what the Greeks did, not only in the case of frontons, but also of statues which were to be viewed from below.

It must be confessed that we moderns have not had the wisdom to profit by the valuable lessons and remarkable experiences of the ancient Greeks. We have copied clumsily, more like children than like artists. We have adhered to the letter that kills rather than the spirit that quickens—and we have not even done that much with any precision.

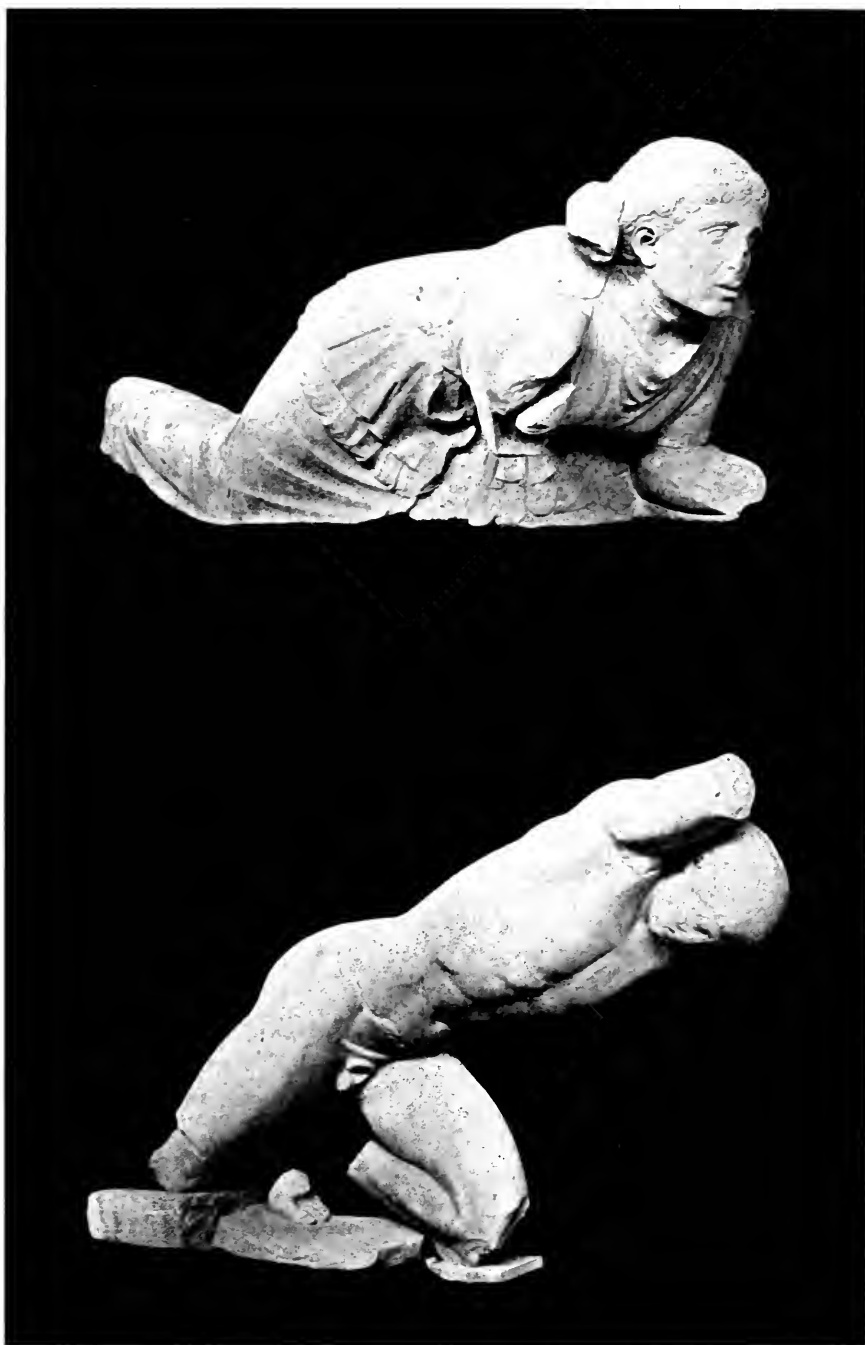


FIG. 11. FIGURES FROM THE WESTERN FRONT OF THE TEMPLE OF ZEUS,
AT OLYMPIA.

What contemporary architect takes account of the laws of optical distortions, although they are explained at length in many text-books? All modern architects ignore them. Judge, then, how far they are from discovering such things. The admirable Parthenon friezes in the British Museum have been placed on view at the height of a man; likewise the fronton figures; yet Phidias and his assistants knew they were to be placed at a considerable height, which would oblige the person looking at them to gaze upwards, and treated them accordingly.

When one reflects upon these facts, which at first sight seem unimportant, one is led to the conclusion that our boasted art-culture is perhaps after all only a vulgar make-believe compared with the true art created by the ancient Greeks; and that we, too, deserve the name applied by them to those who were not of themselves: *Βαββάροι*.

* * *

Let us see of what a Greek temple consisted, according to Pæstum, that noble and archaic pile, of which only the walls and colonnade now remain, although on Greek ground we shall find the full material with which to complete the ruined edifice and depict here an ideal temple, with its sculptured and painted decoration and the surroundings amid which the artistic genius of the Greeks placed the original. To do this, we shall profit by the labors of the Schools of Archæology in Greece and, in particular, the remarkable discoveries and reconstitutions made by French *savants* at Delphi and Olympia. All the information here given, and which has been gathered only with great difficulty, concerns the same period, that is, the first fifty years of that glorious fifth century B. C. Nothing is left of the sculptured decoration of Pæstum, nor of the paintings with which the edifice was covered. The Temple of Pæstum was built of travertine, which, with age, has taken on an admirable brown tint. Let us be thankful, however, to time, and not to the Greeks, for the rich color of

this stone. At the time the temple was erected this material was not considered handsome enough and the building was entirely covered with stucco; and moreover, this stucco was painted. The marble temples did not receive a coating of stucco, although they, too, were painted. We find it hard to realize that the Greek temples were polychromous. This fact remained unknown for many centuries. It was believed that they were white and grey; and so the school theorists (of whom we have had no dearth since the sixteenth century), found the most substantial reasons to prove that the genuine architecture—the great and noble architecture, derived its value entirely from its modular proportions and its combinations of solid parts and spaces, and scorned all colored embellishments. Polychromy, they said, was the work of clumsy novices, both barbarian and gothic—for the Middle-ages also had its architecture painted. Consequently, the last three centuries have witnessed the reign of grey, dull tones in architecture, because *savants* had declared that classic architecture was grey. However, *savants* have since discovered that antique architecture was, on the contrary, polychromous. How many centuries will our schools take to adapt their doctrines to this newly-found truth?

So the Greeks painted their temples.

The Greeks used color to punctuate their reliefs—to “make a ground” for the colonnades. Hence the outside face of the *cella* was painted a dark red, against which the light-colored columns stood out. To-day, the columns of the Temple of Theseus, the coloring of which is all gone, do not stand forth distinctly. The fronton tympanums, on which the statues should be visible, are of a deep blue; the triglyphs and mutules were also blue; the metopes had a painted stucco or marble ground; the band separating the architrave from the triglyphs, as well as that running between the mutules and the *larmier*, were of a dark red color, and the *eclhuis* on the capitals often had palm-leaf or other ornaments, colored. Lastly, the

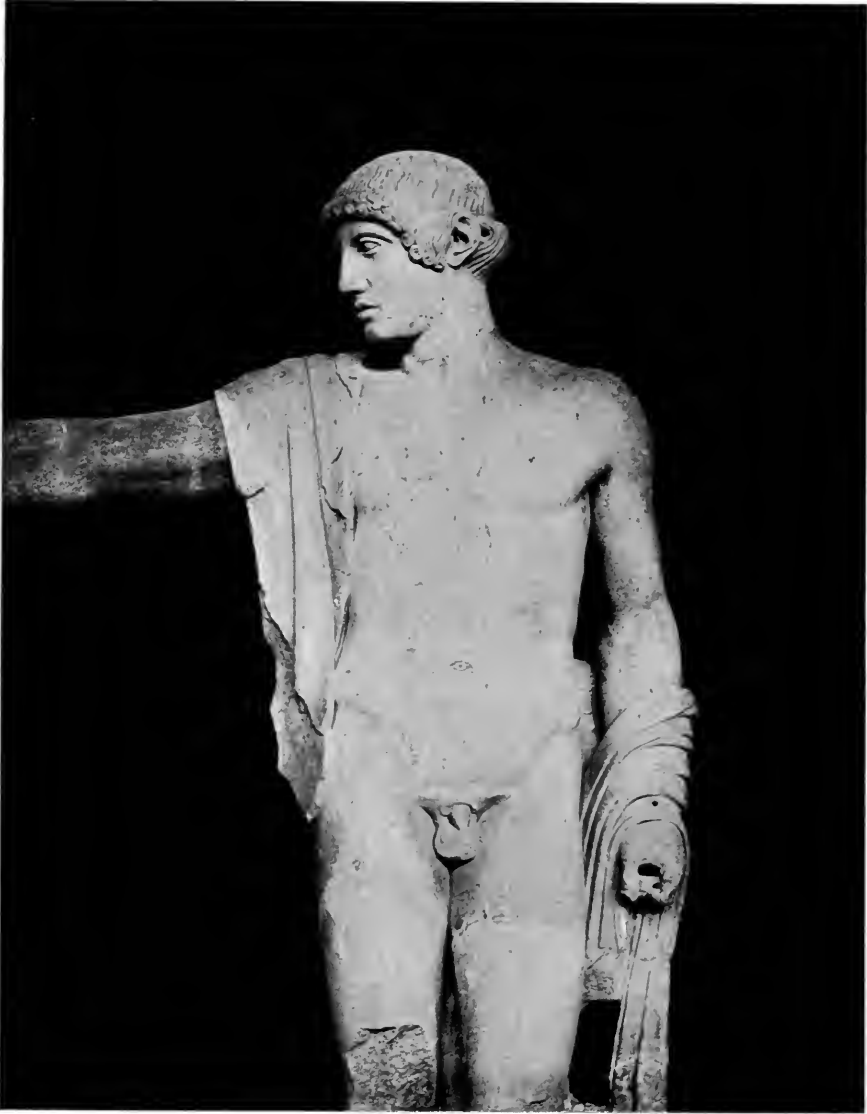


FIG. 12. THE FIGURE OF APOLLO—CENTRAL FIGURE OF THE WESTERN FRONT OF THE TEMPLE OF ZEUS AT OLYMPIA.

richness of the effect was increased by inlaying metal on the marble, and by charging with gold, bronze and enamel. On the frieze of the Parthenon representing the festivities in honor of Minerva, the attributes were in gold. Further, the architect was assisted by the potter, for the temple was roofed with colored bricks, while terra-cotta *ecroteria* decorated the pinnacle and cornices.

The result was an exceedingly rich, polychromic work, such as we have difficulty in realizing. The fine reproductions made by winners of the Grand Prix de Rome for architecture and which are preserved at the Paris Ecole des Beaux-Arts will, however, help to familiarize us with the real Greek temple, as it was created. To this end we publish a view of the eastern front of the Temple of Zeus at Olympia (Fig. 4). It belongs to a little more recent period than Pæstum, and was built on the same plan. The valuable reproductions of it were done by M. Laloux. It is to be noted that the shields hanging on the architrave were not put there until the fourth century; they are the shields of the Roman consul Mummius. The fronton sculptures exist still, and, although mutilated, rank among the masterpieces of Greek statuary. We give views of them in this article. A view of the order of the temple (5) shows in detail the manner in which the polychromy and in a general way the whole ornamentation was composed. There may be some doubts as to the decoration of the architrave; the architrave of the Parthenon and other Greek temples of the fifth century bear no trace of painted decoration. Fig. 6 shows the reconstructed plan of the temple, which, as we have said, is very similar to that of Pæstum. Here the paving-stones of the temple were replaced by rich mosaics. It can now be imagined how sumptuous must have been the picture presented by a Greek temple, a thing which is considered by modern architects to have been a triumph of cold, abstract reasoning. Beauty, to the Greek, was not a lifeless thing, but one full of color and anima-

tion, and a voluptuous delight to the eye.

The Olympian gods, in the ruin of whose sanctuary so many treasures perished—above all the celebrated Zeus of Phidias, that supreme glory of Greek art—have preserved for us some valuable fragments of sculptured decoration of the temple. The German School at Athens has found, buried under the ruins, the statues belonging to the frontons and metopes. We give views of the best-preserved pieces.

The eastern fronton, as appears by the reproduction shown in Fig. 8, depicts the preparations for the race between Pelops and Oenomaus, between whom, in the center, is Zeus. Beside Oenomaus is his wife, Sterope, one of the daughters of Atlas. Then there are the four race-horses; then two men, seated; then a stretched-out figure representing the river Cladeos. There is a similar arrangement on the western side, with the river Alpheus at the end.

We know who was the author of these admirable works, viz., the sculptor Pæonios, of Mende, and that Alcamenes, of Athens, carved on the western fronton the Combat between the Centaurs and the Lapithes (7), with Apollo as the central figure. These statues were thrown down by earthquakes, and broke in falling. The stones of the temple, also falling in their turn, covered them. During many centuries dust and rubbish accumulated above them, and thus they slept in their mutilated state until recent times. When they were unearthed it was found that they had retained their beauty. They afford evidence of what, before the Parthenon was built, Greek sculpture was able to produce.

We only wish to note here the arrangement of these figures and groups on the fronton, the remarkable freedom of the attitudes and their variety; the robustness and ease of the bodies; the plenitude, even at that early epoch, of this art, which has been called archaic; the thrill of life still animating these mutilated marbles, and, what is perhaps of greatest importance for us, the archi-



FIG. 13. A METOPE AT OLYMPIA—HÆRCULES OURANOPHORUS.



FIG. 14. A METOPE AT OLYMPIA—THE BIRDS OF STYMPHALUS.



FIG. 15. A METOPE AT OLYMPIA—HERCULES AND THE CRETAN BULL.

tectonic sense testified to by this sculpture—the place it occupies in the edifice, the help it gives to form the ensemble. Even the so-called defects which certain critics profess to find in these works are, in reality, good qualities; for instance, the roughness and lack of finish, and the coarse appearance of the work when

here a useful subject for meditation by us moderns, for whom decorative sculpture seems to be a superfluity, and a thing which, instead of adding an additional beauty to the edifice, often destroys the architectural harmony and mars the outlines.

We have also preserved a few of the



FIG. 16. PRINCIPAL FAÇADE OF THE TREASURY OF THE ATHENIANS AT DELPHI.

Restored by M. Tournaire.

viewed from close quarters. It is the same old error. People will not understand that these statues were placed at a height of sixty feet; that they were not exhibited in a museum, but erected in the open air, and that these conditions were foreseen by the authors, although they never enter the minds of our modern architects and sculptors. There is

metopes of Olympia, which enable us to reconstruct all the parts of a Greek temple. The first represents Hercules Ouranophorus—Hercules carrying the universe on his shoulders (13). The second is: The Birds of Stymphalus (14); the third: Hercules and the Bull (15). The last-named is one of the finest things in the Louvre. The date

of these metopes is certainly the same as that of the temple itself and can be placed at about 460 B. C.

* * *

We believe the reader who has followed us thus far is beginning to form a fairly clear idea as to what a Greek temple was like. He has seen how the architect planned it; what materials he

nothing in Greek architecture except cold reason, calculation, measure, and rhythm—that is to say, qualities more or less abstract. But the fact is that while it has all these qualities it has others as well. It speaks of abundance, luxury, the joys of color. It uses polychrome effects; it employs bronze, gold, terra-cotta and painted bricks. It appeals, or rather it appealed—for it exists



FIG. 18. THE TREASURY OF THE ATHENIANS AT DELPHI.

The lateral front restored by M. Tournaire.

used, and how he used them; how he studied the architectural forms, not in an abstract, precise way on paper, but in the open air and the bright light of day; how, once the edifice was built, he planned its rich ornamentation, and how, for this latter part, he called upon the potter, the mosaic-worker, the painter and the sculptor. The result was a work full of richness and savor. We lay stress on this point because it has too long been the fashion to see

no longer, and can only be pictured in imagination by patient effort—to the senses as much as to the reason, which is a thing that has been forgotten. As the Greek creations reached us in a fragmentary state, and minus their decoration and coloring, we allowed ourselves to form an entirely false idea of them. Unfortunately the schools seized hold of this idea, and when they have preached a return to antiquity, it is to a dull, mournful, colorless antiquity that we

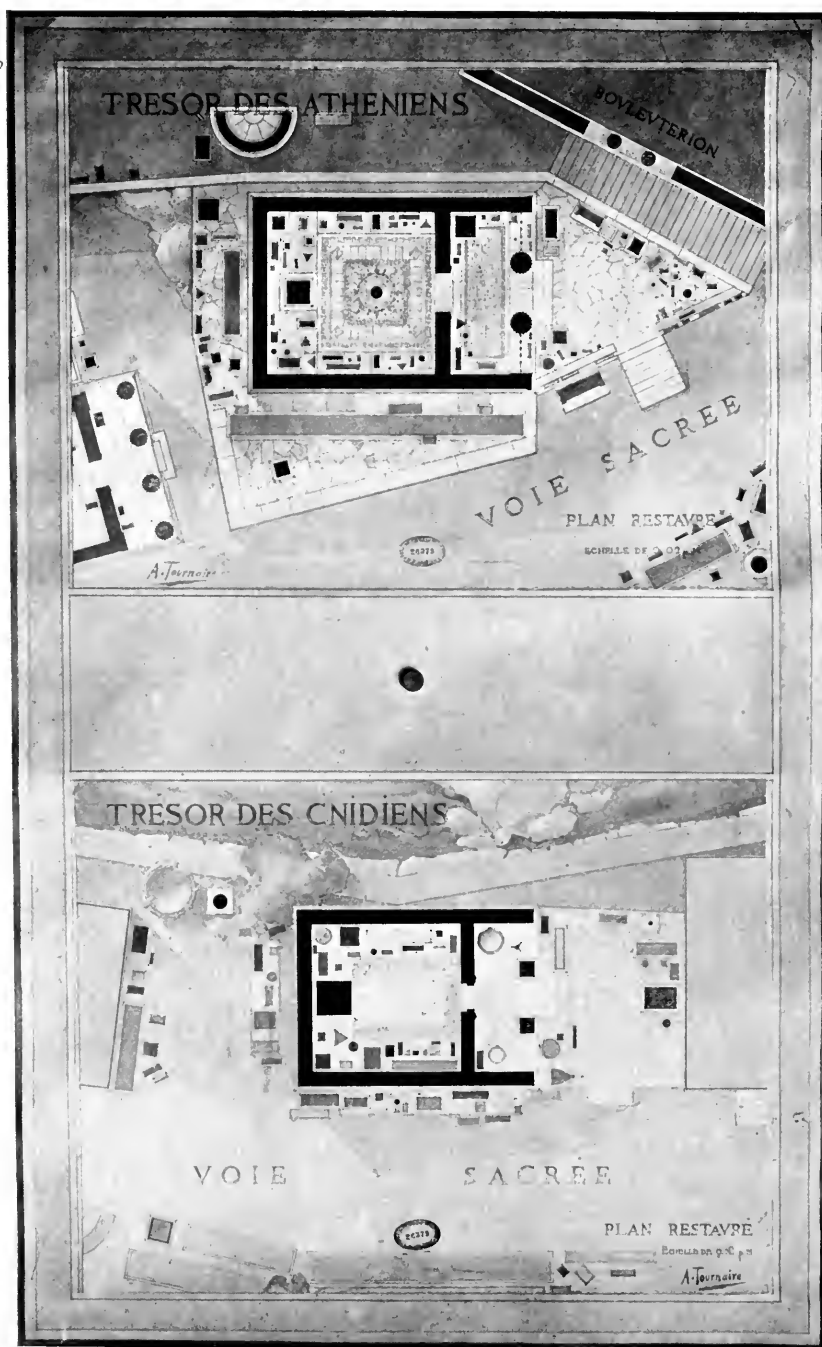


FIG. 19. PLAN OF THE TREASURY OF THE ATHENIANS AT DELPHI.
Restored by M. Tournaire.

have been directed. All neo-classic architecture is based on these erroneous theories. This misconception has weighed upon our architecture for nearly four centuries. In the nineteenth century, when Labrouste and others brought the Ecole des Beaux-Arts to a more correct view, a more harmonious sentiment, in regard to antique art, it was still to abstract reason that they appealed, and a building like the Sainte-Genève Library, which is so interesting from many standpoints, is still de-

century winners of the Grand Prix de Rome for architecture have had the task, during their stay in Italy, or Greece, of drawing the plans of ruined edifices, studying them in detail, and furnishing exact reproductions. They have performed this task with the most praiseworthy zeal, as well as great taste and intelligence. The collection of reproductions kept in the library of the Ecole des Beaux-Arts is most interesting and deserves to be published in its entirety. Only a few, however, have



FIG. 20. FRAGMENTS OF THE EASTERN FRIEZE OF THE TREASURY OF CNIDIANS AT DELPHI.

signed according to the same colorless formula, which, for the Ecole, is the Greek formula *excellence*.

To-day, thanks to the labors of learned men of all nations, we know exactly what Greek architecture was, and to what varied means of expression its exponents resorted. It would not appear, however, that the archæological discoveries that have been made have had the least influence upon the teaching imparted at the Ecole des Beaux-Arts, although that institution ought to represent the purest and best traditions. But this is not all. For more than a

been published, notably, the celebrated one by that great architect Labrouste, who studied Pæstum; that of Olympia, by Laloux, of which we give a few plates, and some others. These are the most noteworthy works that have emanated from the French Academy at Rome, the influence of which, as regards painting, sculpture, engraving and music has been mediocre, and often pernicious, upon the artists sent there from Paris by the Ecole des Beaux-Arts. The curious part of it is that these architects, who so ably reconstituted edifices of antiquity and ornamented them on their

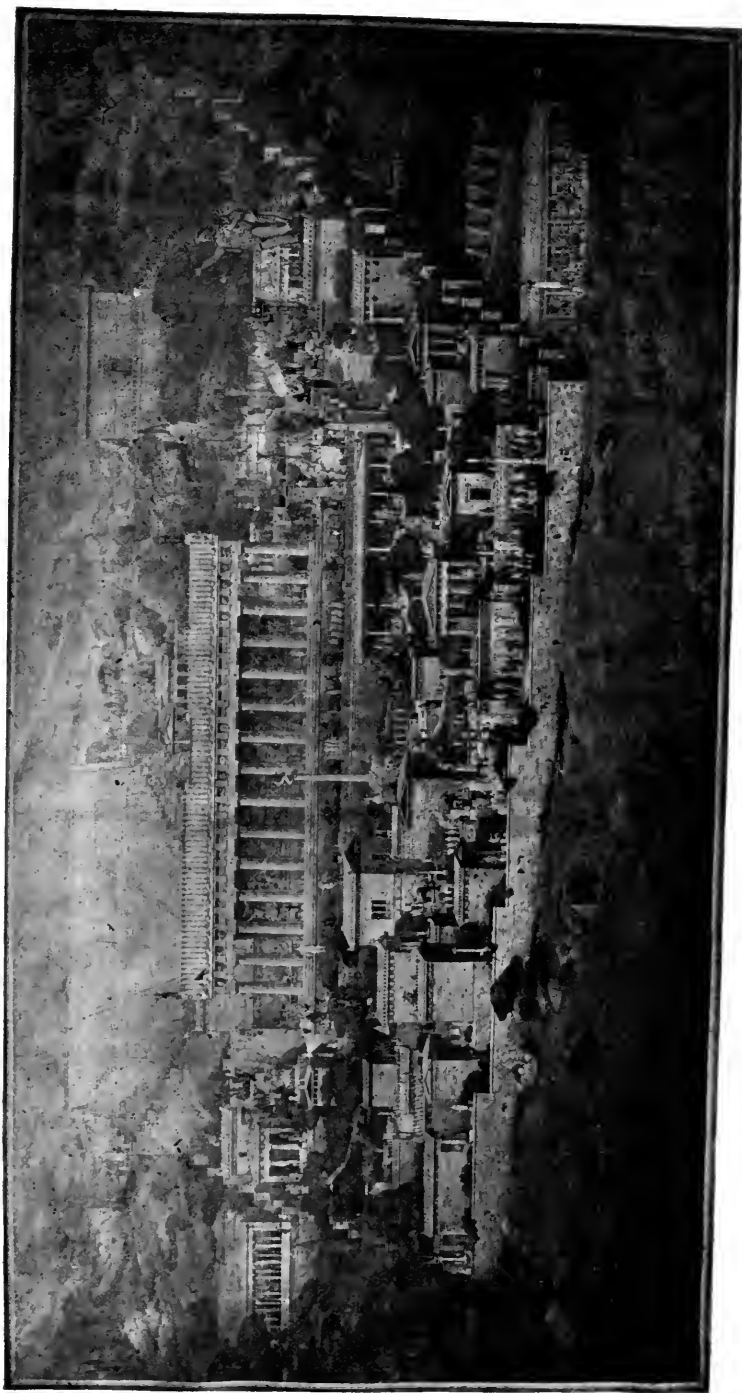


FIG. 21. PERSPECTIVE VIEW OF THE SANCTUARY OF DELPHI.
Restored by M. Tournai.

water-color drawings with the richest polychrome decoration, are the same men who have made French nineteenth-century architecture what it is and kept it in that dull, cold, grey tone we have described and of which we are utterly weary. They cannot plead ignorance; they knew what was right, and yet have done precisely the contrary.

* * *

There still remains one point to be examined with regard to the Greek temple. We have reconstituted it as it used to be; we must now show briefly how the Greeks chose the location for it; how they placed it with respect to other buildings, and what their ideas of symmetry were. For this, we will again turn to the reproductions made by architects who have won the Grand Prix de Rome, and, confining ourselves to edifices of near date to Pæstum and Olympia, cast a glance at the Temple of Delphi, as revealed to us by the researches of the French School at Athens and architecturally reconstituted by M. Tournaire.

These reproductions of Delphi are of the deepest interest. Here also we have original works that have come to take their place among architectural reconstitutions. The general appearance, therefore, is very bright. In studying Delphi we learn that valuable truth at which I have already hinted in the course of this article, namely, that perhaps the very first of the qualities possessed by Greek art is freedom, spontaneity—I might almost say fancifulness. To us that art represents rule—something fixed and regulated, whereas to the Greeks it was a free creation. To us it suggests ideas of correctness, symmetry, to be secured at all costs, whereas with the Greeks, edifices were always designed out of symmetry. For us Greek art is based on cold reasoning, and is a thing whose effects are measured and kept within close bounds, whereas the Greeks, on the contrary, loved joyfulness and abundance. Nothing could impress the truth of this so strongly as an examination of the re-

productions of Delphi, which are here submitted.

Look at this big temple, located on a hill. Around it are grouped a number of edifices, small and large; a building for holding meetings, a theatre, a considerable number of little buildings containing the treasures of the different cities which, every year, sent an embassy to Delphi laden with presents, as well as votive monuments, erected in gratitude to the Pythian Apollo. What a splendid list of subjects for a Grand Prix competition! One can imagine the beautifully symmetrical arrangements that would be sent in—the broad avenue bordered by edifices in identical groups, with the temple of the god at the end.

The Greeks did not care about having such an arrangement. The sanctuary—that is to say, the entire group of sacred edifices at Delphi—was constructed on the somewhat steep side of a hill, on which two terraces were made, one above the other. The Sacred Way leading to the Great Temple on the upper terrace had two turnings, one sharp and the other easy. Still more, the road was not even straight, but curved according to the formation of the ground. It did not lead to the front of the Great Temple so as to give the pilgrims a full view of that edifice, but only allowed of a three-quarter view of it. The same, by the way, was the case with the Parthenon, which presented an oblique view to spectators on their entering the acropolis. It was a view much liked by the ancients, but we moderns do not seem ever to be able to provide it in connection with our public edifices.

Along the Sacred Way the small edifices were built and grouped in the most irregular manner. The fronts of some were parallel with the road, while others were at a right angle thereto; others again stood obliquely. There were two terraces, as said above; also, porticos and votive columns. Thus this collection of monuments was arranged in no precise order, as will be seen from the plan given (17). A fine perspective view (Fig. 21) shows what a wealth of

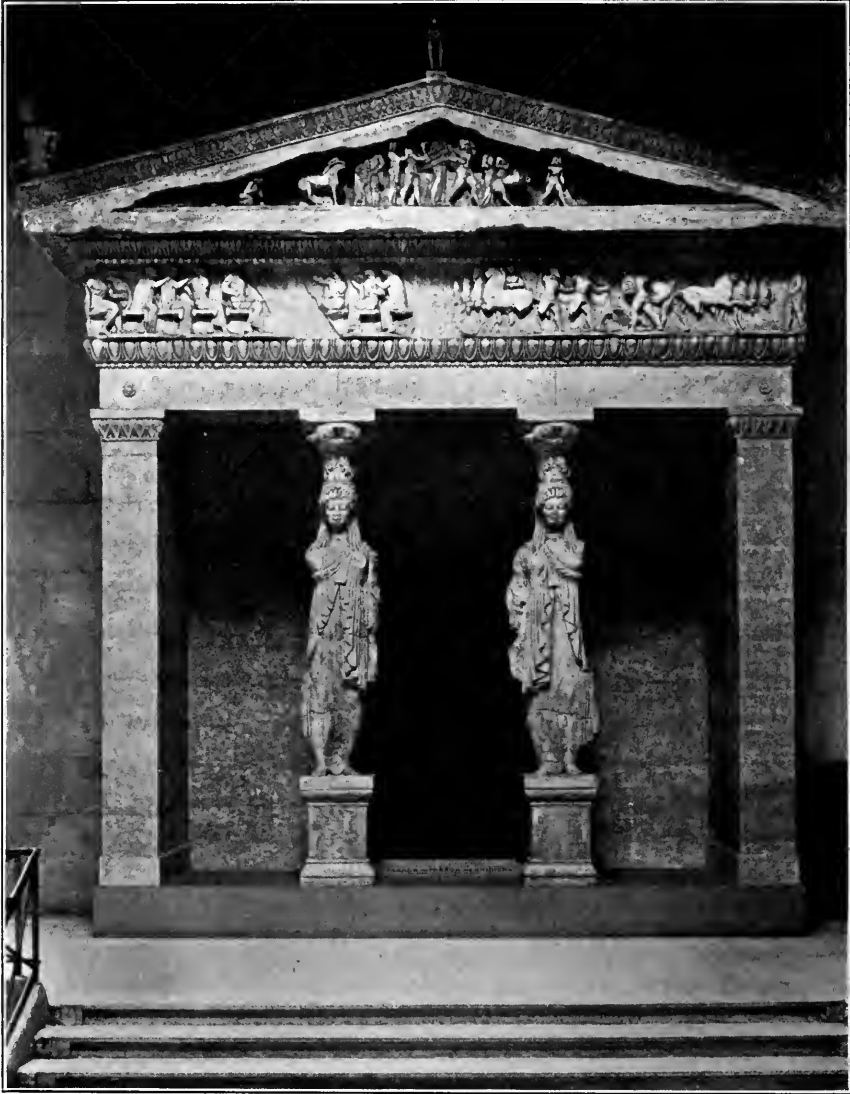


FIG. 22. FAÇADE OF THE TREASURY OF THE CNIDIANS AT DELPHI.



FIG. 23. COLUMN OF THE NAXIANS AT DELPHI.

edifices of all kinds composed the Sanctuary of Apollo, how great the accumulation, on a restricted area, of buildings small and large, and statues. Such was the appearance presented in its palmy days by that assemblage of masterpieces, and it must be confessed that it is a most astonishing and interesting sight.

The work done by the French School at Athens enables us to make a close examination of the plan and elevation of one of those Treasuries. Here is the horizontal plan, the principal front, and a lateral front, of the Treasury of the Athenians. The plan (Fig. 19) shows a small rectangular building with a sort of portico in front, supported by two columns. Inside, a single chamber, in which was stored the treasure of the Athenians at Delphi. One can see how the building was placed alongside the Sacred Way. Below is the very similar plan of the Treasury of the Cnidians. The principal front (Fig. 18) is Doric of the archaic epoch. It is reached by steps. The edifice was polychrome. On the metopes combats were depicted; on the portico walls, shields and trophies were hung; before the Treasury stood tripods for the sacrifices, and the whole thing, of extreme richness, was completed by a number of statues.

To form an opinion upon the art that flourished at Delphi during the latter part of the sixth and the first moiety of the fifth centuries B. C. we have something better than architectural reproductions, which, however perfect they may be, cannot render the beauty of the works themselves; we have originals, telling us of the perfection of detail evidenced in the monuments and sculptures.

See, for example, the Treasury of the

Cnidians, which has been reproduced in plaster at the Louvre Museum (Fig. 2). Here are two magnificent caryatides supporting the fronton. The frieze is ornamented with bas-relief sculptures of great vigor. In order to allow its plastic beauty to be better realized we show a detail (Fig. 20). The subjects depicted are: On the left, the Gathering of the Gods; on the right, the Combat between the Greeks and the Trojans.

Lastly, we give a view of the monument of the Naxians, which can also be seen, in the distance, on the terrace before the lateral front of the Great Temple (23). It consists of a very high fluted column which spreads into a superb Ionic capital. Crouching on the capital is a strange and striking Sphinx, with outstretched wings. Leaning on its stiffened forepaws, it still stares with pensive visage into eternal space. It is one of the most powerful, most stirring examples of archaic Greek statuary. We can also say that this work has enhanced the opinion we had formed before its discovery of the spirit of invention and liberty displayed in Greek art. This is why we have wished to present it in this article, the object of which will have been attained if, by collecting precise data for the complete reconstitution of a monument and evoking the epoch when the Greeks were creators, we have enabled the reader to realize the life and power that pervaded Greek art. May the lessons to be learned from that art, if sought for, be lessons that will lead us towards liberty and venturesomeness, and cause us to be guided, not by abstract reasoning, but reasoning which allows the brightening, enlivening influence of the senses to play its necessary part.

Jean Schopfer.

The Home of an Artist-Architect.

Louis H. Sullivan's Place at Ocean Springs, Mississippi.

Down in the sunny South, between New Orleans and Mobile, where the sparkling waters of the Gulf of Mexico makes one of its beautiful indentations, Biloxi Bay, girt by beach of golden sand and dark green pine trees, there lies a little tract of land some three hundred feet wide and eighteen hundred feet deep, in the midst of a forest.

The white shell road in front runs along a bluff ten feet above the water and beach, curving around in a gentle line.

One passes through the gates to within either by its winding carriage road or bordered paths and up a series of easy steps. There are no signs: "Trespassing not allowed." Visitors and lovers of Nature are welcome, for this is the resting place of a true believer in real Democracy who has voiced his sentiments in no uncertain tones.

Here there has been for some fifteen years or so a modest, comfortable one-story shingled cottage, reached only by the touch of the wind and the golden sun; and embowered among stately trees, growing shrubs, clinging vines, and in season, blooming roses cultivated with the greatest care and thought.

Across the front of the building runs an ample and commodious "gallery" or piazza, (for here one stays outdoors as much as possible) and sitting beneath great clusters of white wisteria hanging from the roof, can look over the rose garden blooming in rich profusion, through the vistas guarded by towering trees and across the stretch of water of the bay glittering with countless gems beyond the price of the ransom of kings, to the long, low island, fringed with its dark belt of trees above the white strip of sand which divides the water and the foliage—and all this scene of rest and

tranquility breathing the soft and balmy air which envelops all and dims in hazy hue the far perspective.

Within the house, there is first a spacious hall, long and wide, and with a decidedly "home" atmosphere, and containing restful furniture, good books, interesting pictures, and articles of interest selected with constant eye for their value in beauty and use. This room is large enough to permit a nook for the dining-table and its accessories, and contains a fire-place and ample bookshelves. Along the front to the left is the spacious guests' room, to the right the owner's sleeping apartments, all opening upon the gallery. Directly in the rear of the hall is the service room, leading by a passage to the kitchen. The wing of this portion terminates in an octagonal tower formerly used for the tank water-supply before the sinking of the artesian-well, with its ample flow of crystalline water.

Here literally under his own vine and fig-tree, at times abides one who has been for many years an ardent student and lover of Nature in all her manifold forms; and here has he absorbed much of her bounty to be given forth in productions of rare artistic beauty and worth.

In our modern life with all its cults and "isms," we use the word Inspiration with a recklessness and ignorance truly astounding. One has but to see the surroundings of which this is written fully to comprehend the immense value of such sources when approached in all seriousness with heart and brain attuned to the visible forms of organic life with full sympathy therefor.

So this little garden-spot of the earth is not merely the idling-place for a busy worker's recreation; but an opportunity



GENERAL VIEW OF THE COTTAGE AND THE ROSE GARDEN—LOOKING NORTHWEST.

The Place of Louis H. Sullivan.

Ocean Springs, Miss.



GENERAL VIEW OF THE COTTAGE IN THE LATE SPRING.

The Place of Louis H. Sullivan.

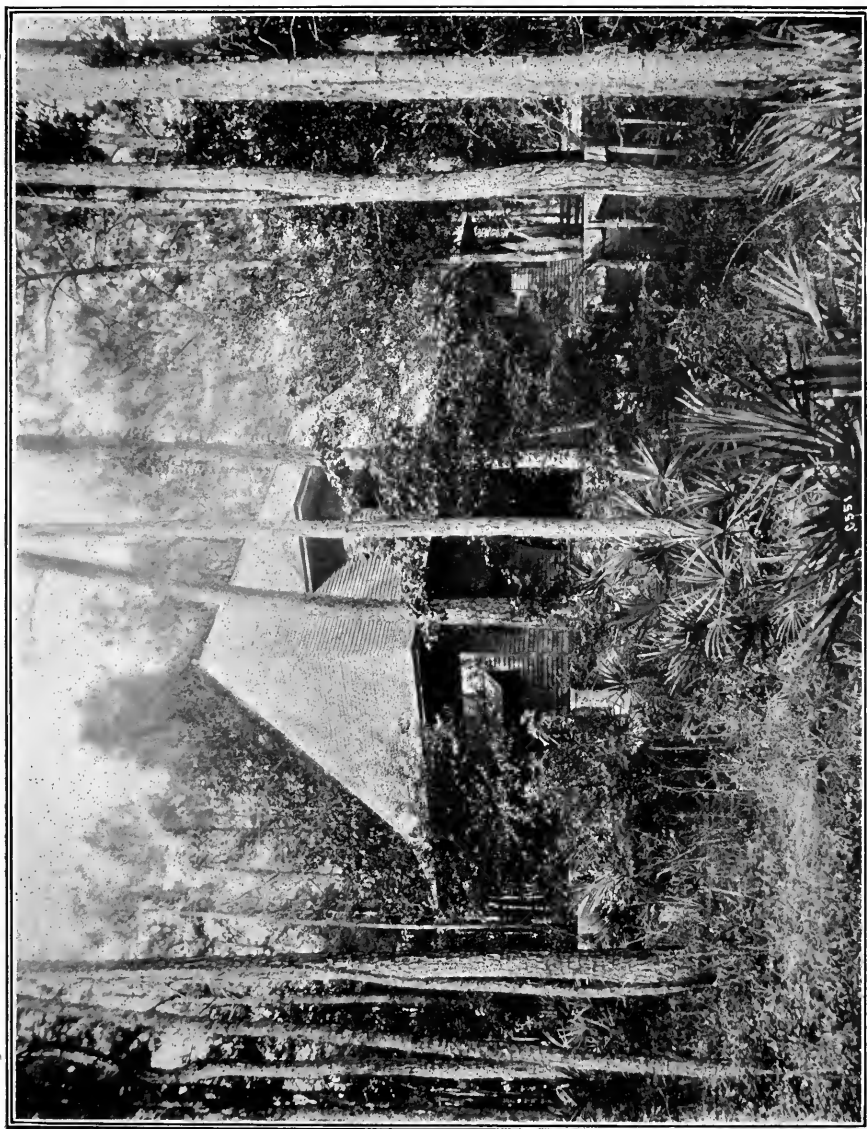
Ocean Springs, Miss.



THE SERVANTS' QUARTERS.

The Place of Louis H. Sullivan.

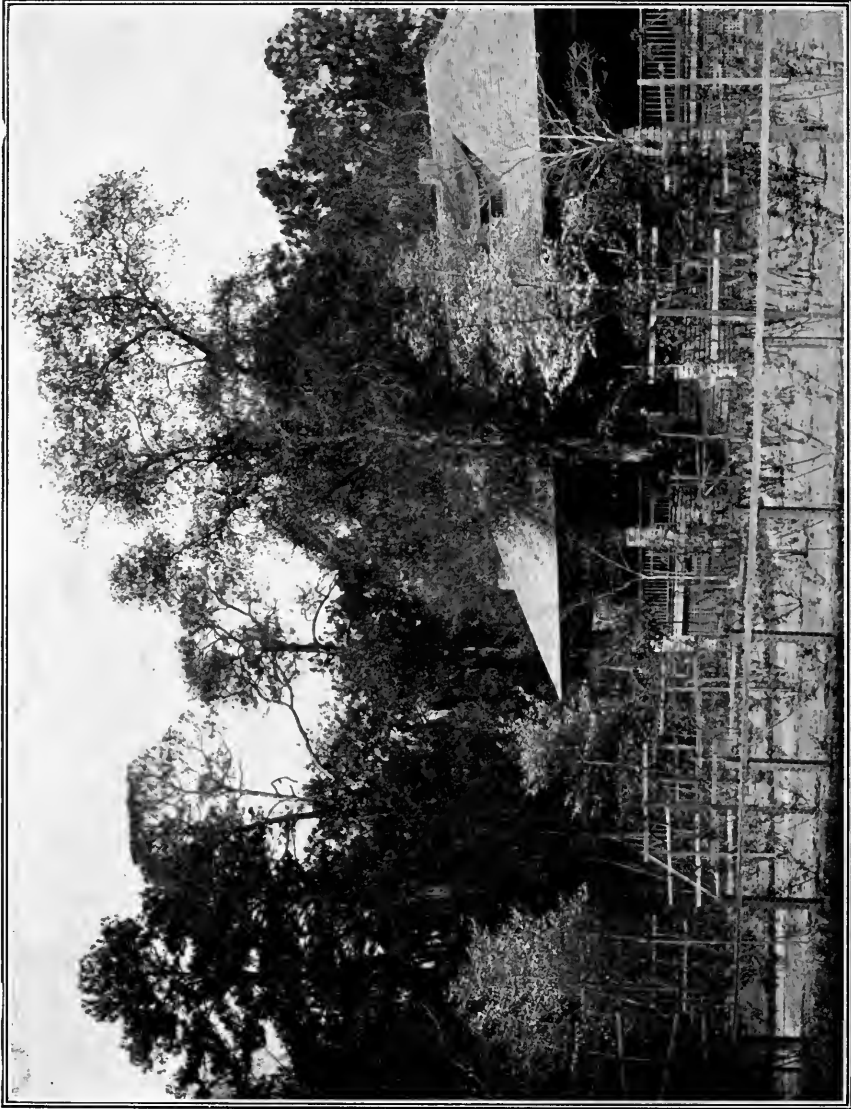
Ocean Springs, Miss.



THE STABLE.

The Place of Louis H. Sullivan.

Ocean Springs, Miss.



VIEW OF THE COTTAGE AND THE ROSE GARDEN IN THE EARLY SPRING.

The Dogwoods are in bloom and the Roses are just starting.

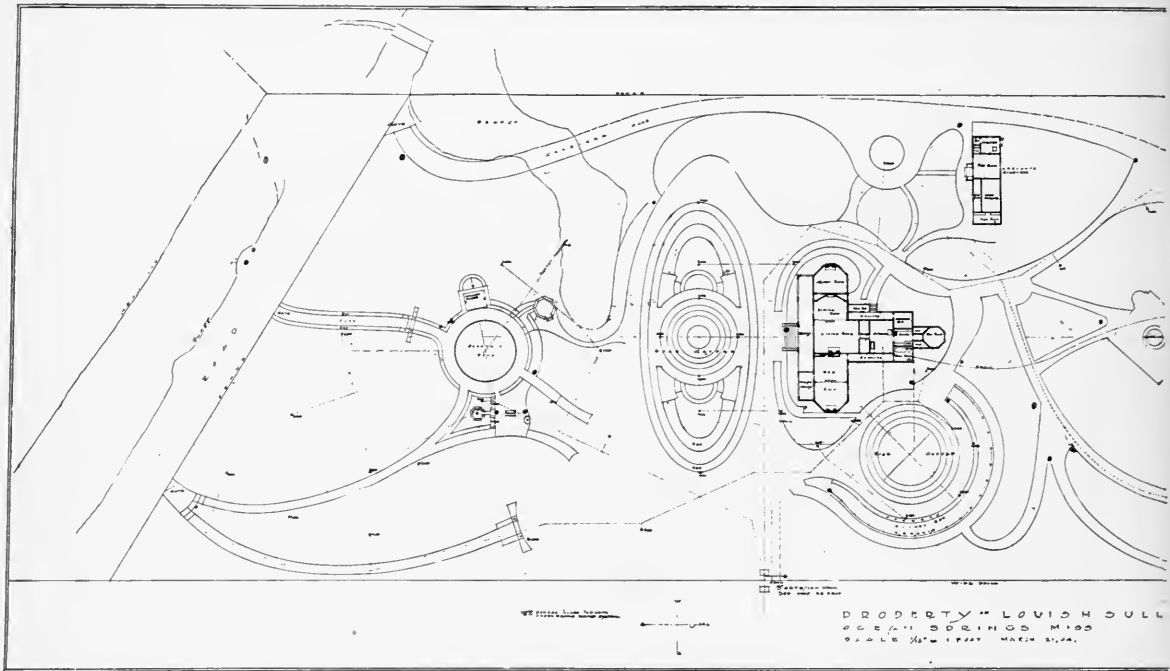
The Place of Louis H. Sullivan.

Ocean Springs, Miss.



VIEW OF THE COTTAGE FROM THE RAVINE.
The Place of Louis H. Sullivan.

Ocean Springs, Miss.



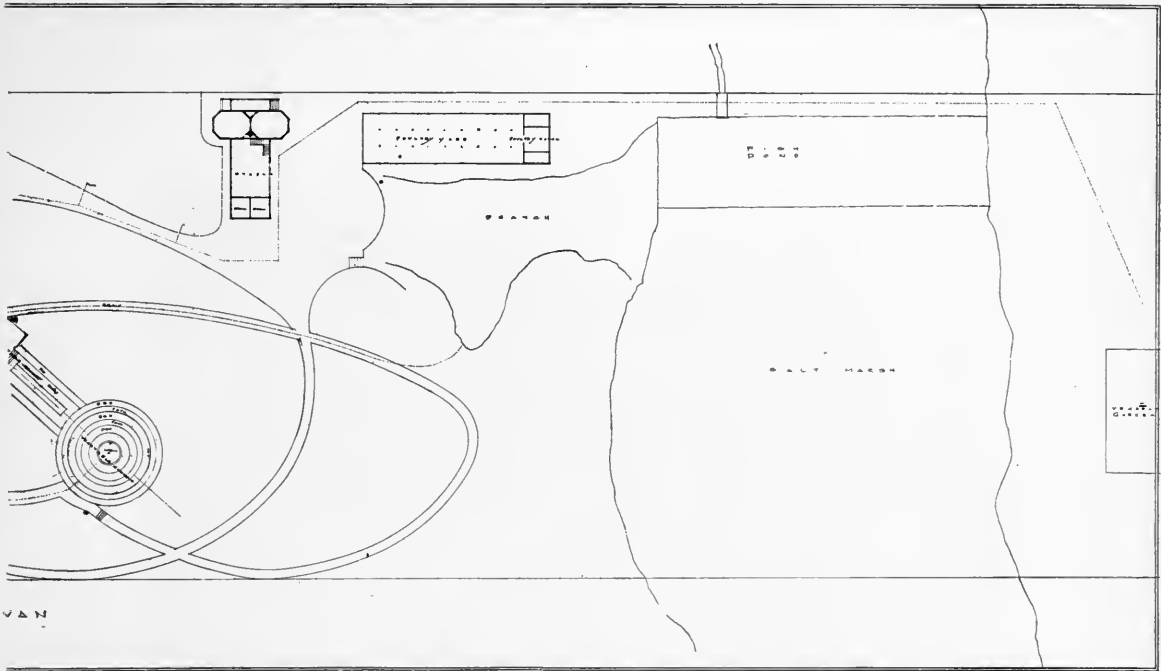
for constant observation, inspiration, and interpretation of natural phenomena, all to be duly assimilated and in time to appear in concrete forms of expression as fine art in buildings, highly conventionalized ornament, or as literary productions of exquisite worth.

The arrangement of the grounds, both in contour and contents, is the result of careful study and consideration. Each portion has been taken at full appraisal as to its value and position, and developed or left to grow in its natural state, with the idea of the utmost utilization of opportunity, not only in the preservation of all its most beautiful features and advantages, based on the soundest principles of modern landscape architecture, but also in the introduction of artificial requirements and embellishments, in which the hand of man is plainly evident.

The native forest has been touched only here and there to open vistas from the house to the waters of the bay, disclosing Deer Island, which, stretching out as a natural breakwater, prevents the incoming waves from reaching

with too great a force, the beach and the oysters in their beds, clustered thereon. The trees tower aloft in all their native might. "The three Graces, the giant Twins," pines, live and water oaks, black-gums, sweet-gums, and hickories. To a lesser height are magnolias and catalpas, with their shining leaves and exquisite flowers, wild-plums, glorious dog-woods, gleaming in snow-white profusion in the foreground or glinting their brilliancy amid the clustering trunks of the background. Nearer the ground, are the blazing colors of the wild honeysuckle and the magnificence of the azaleas. The palmetto with its highly decorative spreading forms a base for it all, and finally carpeting the ground with the green grass are the modest yet beautiful flowers of violet, white and red softening the tread of the foot on Mother Earth.

With companions such as these, some of many years' friendship, others of yesterday, one cannot fail to realize in its true significance the meaning of the word Growth; or not grasp the immense influence of such sources on a



mind which cherishes the close proximity of such specimens of Nature's handiwork and care.

Intimately associated with the possessors of masculine attributes of height and strength, are the more tender growths, embodied in trellised shrubs or clinging vines, growing in brilliant profusion of color; white or purple wisteria and honey-suckle, each dependent on some giant body on which to cling or climb; and the Spanish-moss hanging from some of the trees adds its patriarchal character to the scene.

The gem, however, of which all this gigantic and luxurious growth is but the setting, is the rose-garden in front of the house. There is also a smaller one on the east side of the cottage.

The main rose-garden is a series of concentric circles of beds and paths developing at the ends into elliptical forms and is about one hundred and sixty feet long. Many varieties are cultivated so as to make the blooming as continuous as possible from earliest Spring to late Autumn. Among others there are bushes of General Jacqueminot, Cath-

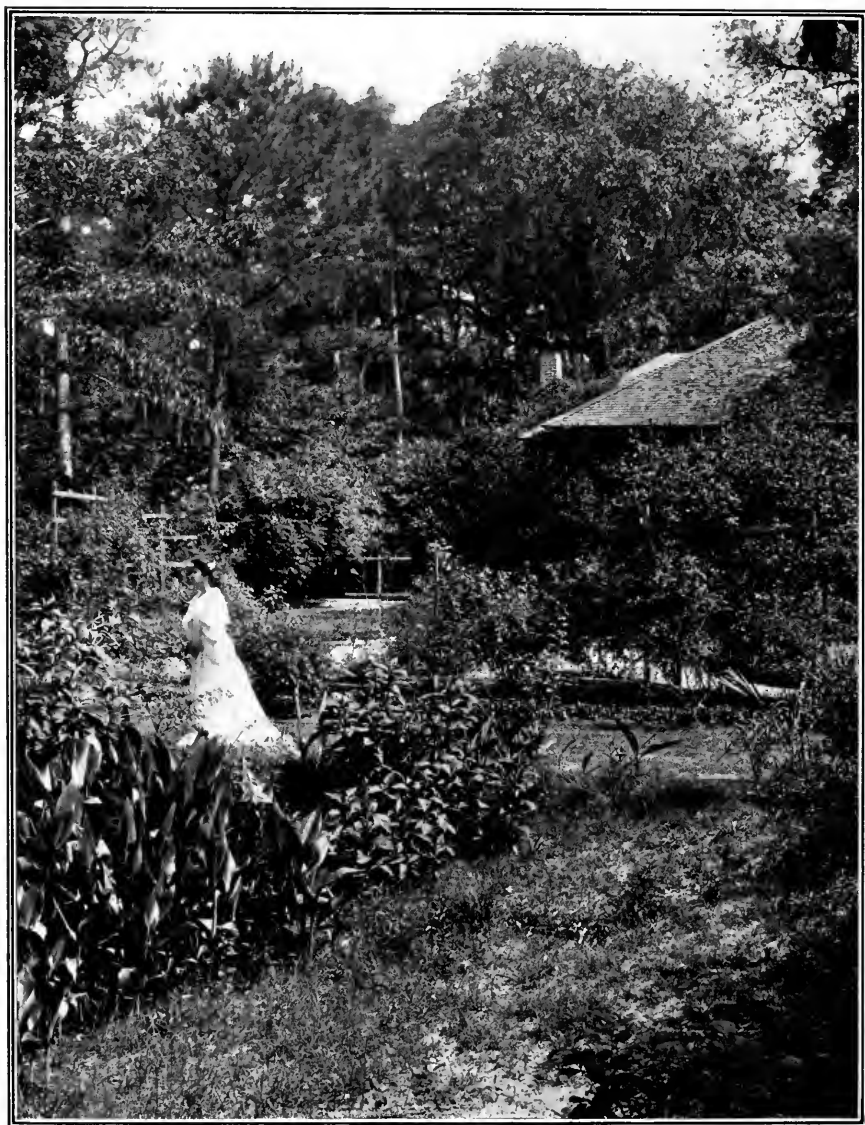
erine Mermet, Paul Neyron, Marie Van Houtte, Mad. Lambard, Souvenir d'un Ame, Papa Gontier, all nourished with zealous care by the gardener and under the advice of the architect owner.

So from early Spring to Christmas the blooming fills the air with fragrance to be wafted away over the soft waters of the bay or to mingle with the odors of the woods.

Imagine the chromatics of such a bed of living color spread out before the eye—the delicate tints, which only roses can possess, blending with the many greens as the sunlight falls upon them, sifted through the great trees or sparkling with uncountable gems wherever the direct rays glisten the dew-drops.

So the roses bloom here in all their tenderness of budding and glory of fruition. They often grow to great size and beauty of color, and one bush of the Agrippina has been developed to such a height that a man standing beside it is dwarfed by the great growth beside him.

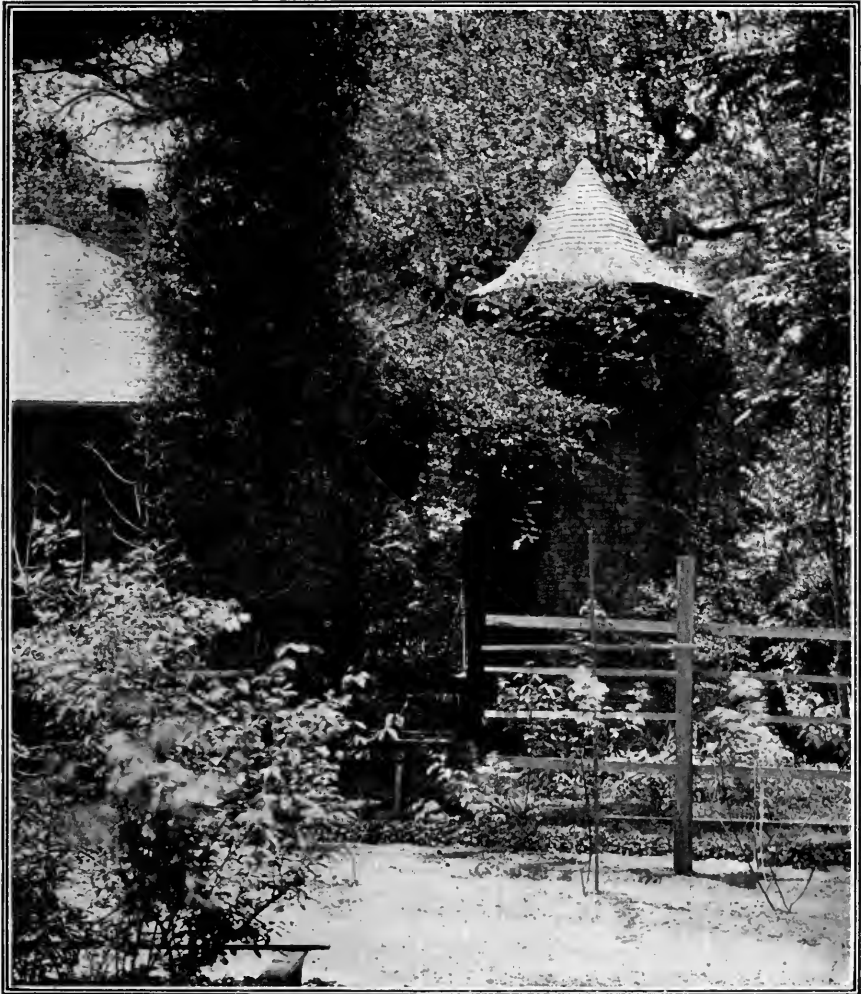
In spite of the fertility and vigor of the various growths, care has always



VIEW OF COTTAGE THROUGH THE TREES.

The Place of Louis H. Sullivan.

Ocean Springs, Miss.



THE RAIN-WATER CISTERN.

The Place of Louis H. Sullivan.

Ocean Springs, Miss.



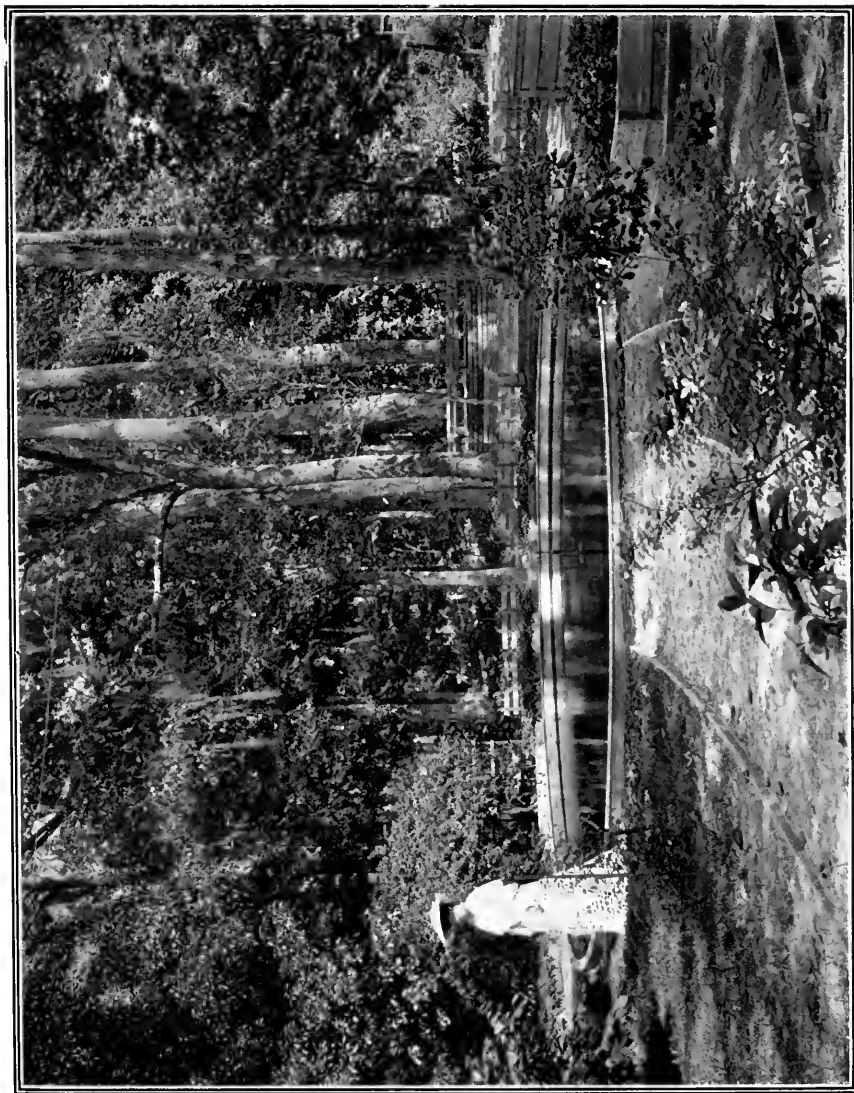
THE MAIN ROSE GARDEN FROM THE COTTAGE—LOOKING SOUTHEAST.
The Place of Louis H. Sullivan. Ocean Springs, Miss.



THE MAIN ROSE GARDEN—LOOKING SOUTHWEST.

The Place of Louis H. Sullivan.

Ocean Springs, Miss.



THE POOL—LOOKING WEST.

Ocean Springs, Miss.

The Place of Louis H. Sullivan.



A ROSE-BUSH—MRS. JOHN LAING.

The Place of Louis H. Sullivan.

Ocean Springs, Miss.

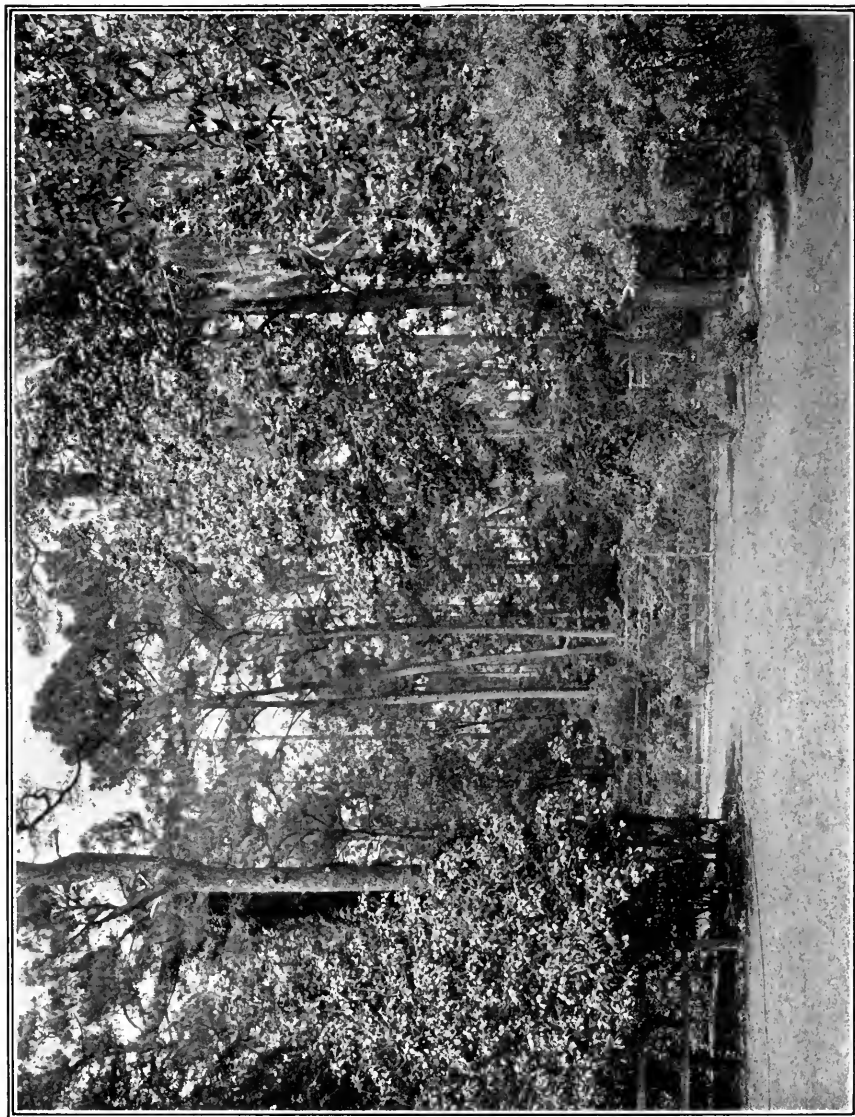
been exercised that they should not greatly overrun portions of the grounds, and within two years considerable labor has been expended in giving the premises toward the entrances a park-like and more formal effect. To this end, the lower growth has been cleared away and a circular pool built some thirty feet in diameter and three feet deep. This is connected with the artesian-well which spouts from a jet in the middle of the mass of water. The waste from this pool is then discharged into a "branch," which occupies a portion of the grounds and around the edge of which winds the carriage-road with its circular turning at the servants quarters within easy reach of the cottage.

Around the pool are arbors, summer-houses and seats fitted with cunning

little beds for flowers—these are all built of native cypress, and are of a novel and unique design. Even the restless may be lulled in a capacious swing hung from two of the ever-faithful trees.

The utilitarian features of this place have likewise been carefully considered. The water-supply is carried extensively about the grounds by a complete system of piping with numerous taps for watering the plants.

The sewerage from the house is conducted to a suitable distance and discharged into a portion of a salt-marsh running in from the bay in the rear of the premises; and there is an interesting vegetable or kitchen-garden laid out on a basis of concentric circles terraced down from a broad series of paths, and containing a fountain in the centre.



THE SMALL ROSE GARDEN—EAST OF THE COTTAGE.
The Place of Louis H. Sullivan.

Ocean Springs, Miss.

There is a commodious house for servants with a quaint little entrance and seats, and the building ends in a latticed wood-house. Some way back is the ample stable with its arched entrance for vehicles, comfortable box-stalls, additional sleeping-rooms and the hay loft.

This is all designed in the simple manner of the house—yet all fitting for their use and from the hand of a master.

Back of the stable is the chicken-house and yard—protected from the marauding incursions of alligators by fence and screening.

ing even the delicate peach blossoms to shame, with dog-woods far and near shining in the sun, with laurel and rhododendron, is an intense and heart-gladdening sight, and a marvelous tenderness comes over one.

Then to pass into the sombre shades of the southern pine forests, bleeding their turpentine for man's use, and skirting the waters of the Gulf, to leave the world behind and sequester oneself in this garden of multicolor and form. The birds sing blithely in the trees—red, and blue and brown—warbling their notes in state of happy freedom. The



A ROSE-BUSH—BRUCE FINDLAY.

The Place of Louis H. Sullivan.

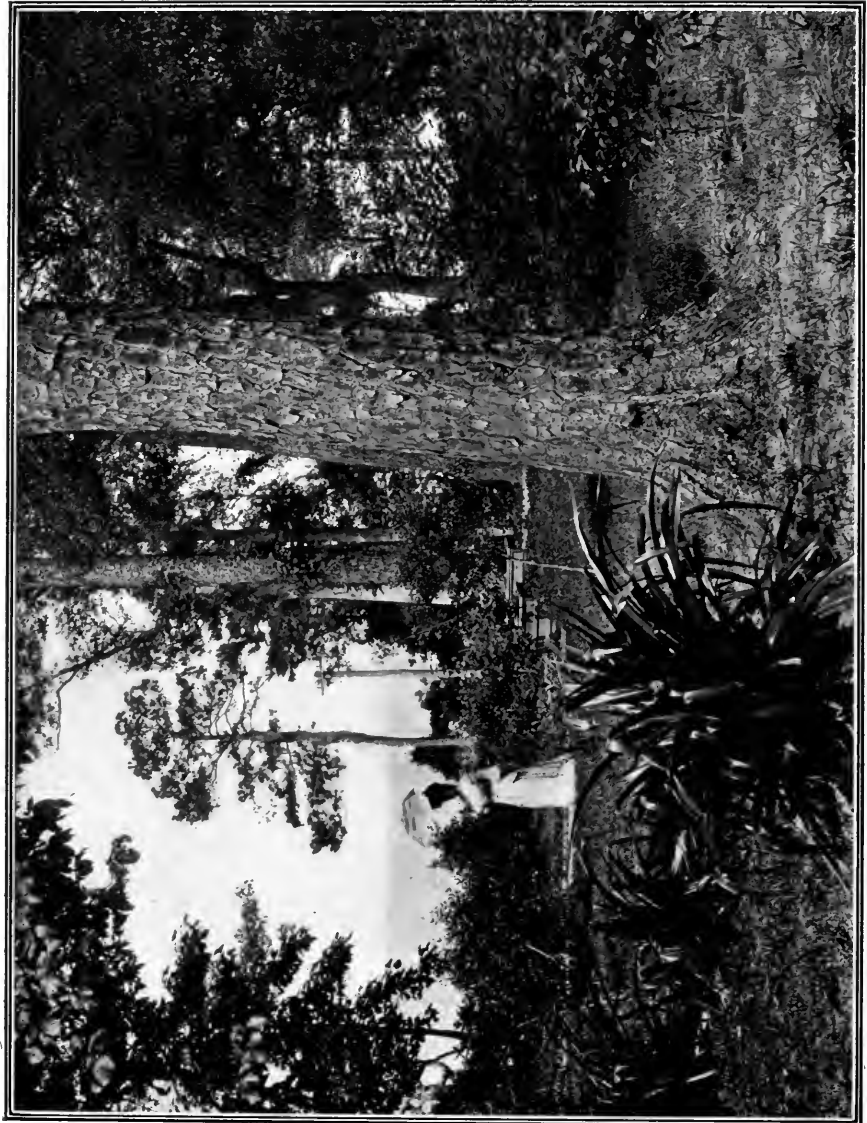
Ocean Springs, Miss.

Then comes a pool of water some hundred feet long, in which there are myriads of gaily colored crabs. Across a small bridge, ascending ground takes one into the depths of the forest, where wild life grows unrestrained except in the paths leading to the rear of the premises.

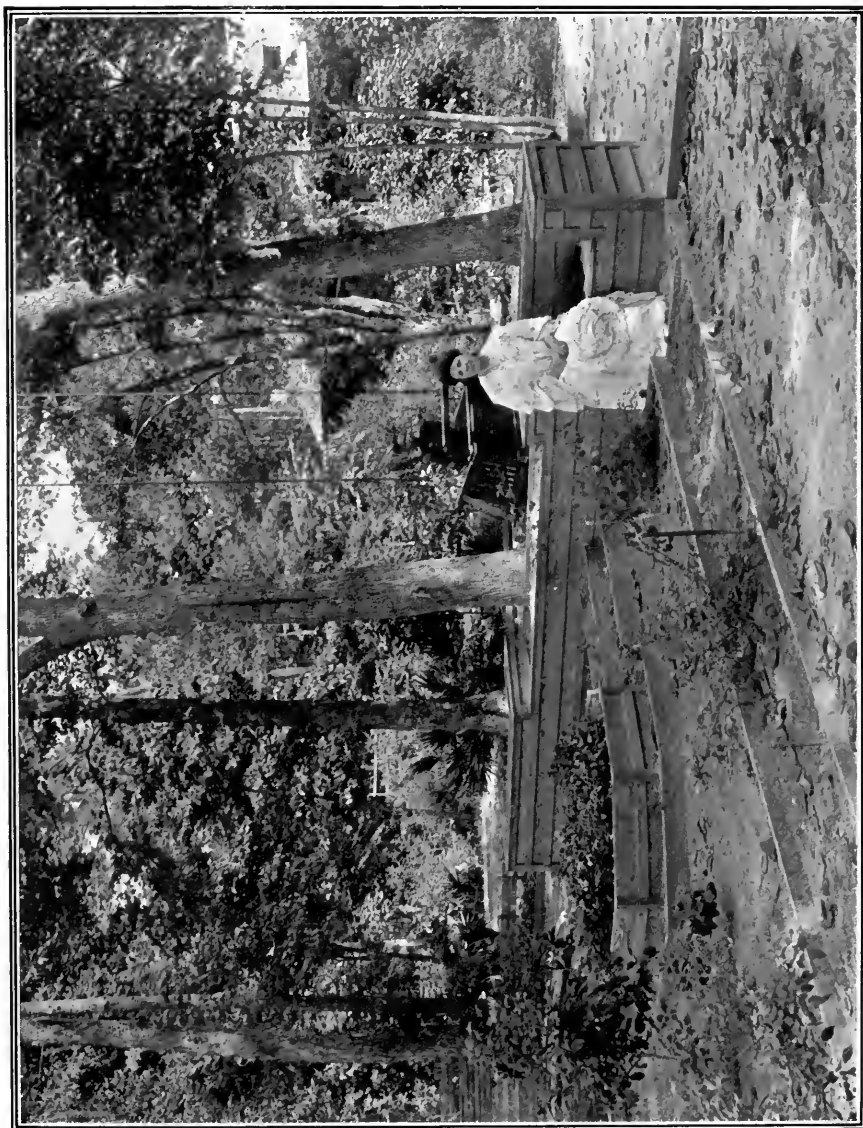
To visit this place in the early Spring, coming from the North, causes one to truly realize "real spring." To leave the leafless trees behind and glide through a country of ever deepening foliage with a profusion of persimmon blossoms of a super-regal purple, put-

ting chameleons blink lazily in the sun, changing their colors with every mood. All life seems glad. Then to sit on one of the benches and listen to the murmur of the fountain as it leaps merrily above the pool; or to sit on the gallery above the roses and hear the waters of the bay as they indolently roll in and out lapping the sanded shore is to feel the great touch of Nature through the hand of the Infinite.

The old Mexican negro with red bandana tied around his waist and his blue overalls, a fine bit of "local color," works industriously as he trims the



BILOXI BAY—LOOKING WEST.
The Place of Louis H. Sullivan.
Ocean Springs, Miss.



THE COTTAGE—LOOKING NORTHWEST.

The Place of Louis H. Sullivan.

Ocean Springs, Miss.

grass and borders; or picks the rose-buds that the fittest may survive. Now and then a cow munches herbage along the road. The old magnolia tree with roots exposed by the shelving bluff stands guard beyond his neighbors. A cat-boat glides across the bay with Old Glory flying at the peak. Then with this page of Nature's great open book spread out before the eyes, comes a realization that "only man is vile," and

likewise much of his so-called architecture.

How can we leave the place knowing in full measure how much it has done for our Art; and go out again to where its influences have spread abroad, for from this little spot has emanated the results of reflection and communion with real things which has produced an invaluable contribution to our American Architecture.

Lyndon P. Smith.



PORTRAIT OF MR. LOUIS H. SULLIVAN

The Madlener House in Chicago.

R. E. Schmidt, Architect.

The house at the corner of Burton Place and North State Street, Chicago, is of exceptional interest in its exterior design. We have two views of it, and a third photograph of details; and because it is an American dwelling house, after all, with no remarkable features in its plan and arrangement except the use of the third story as a large ball-room, it seems well to consider that exterior by itself. If, then, the reader will imagine that we are walking together along North State Street, coming from the south, with the Lake Shore Drive and the narrow park and the lake itself a little way off on the right hand—the actual shore of the lake being only a quarter of a mile distant—he will see the house in question as in Fig. 1. The street that runs crosswise, east and west, and reaches Lake Shore Drive, is Burton Place, and if we turn up to the left and walk along Burton Place for 200 feet, we reach the point of view taken by the photographer when he made Fig. 2. From this point of view it is plain that there are no houses built on the easterly side of North State Street, so that for a short time the inhabitants of this agreeable dwelling have a view of Lake Michigan from their eastern windows. There is, we note, a stable on the plot, at the edge of one of those curious alleys with which Chicago is furnished, and which, to the foreigner from New York or Boston, are a constant annoyance in interrupting his peaceful march along the sidewalk twice as often as it would otherwise be broken, and in being always muddy and ill-paved—forlorn breaks enough in what might be a pleasant promenade. But they are of unquestioned utility. I, who complain of them, have lived

where they are in use, in Baltimore, in Philadelphia—there is no mistake about the expediency of using them to replace the hateful area entrance with its concomitant of ash carts and swill carts drawn up before it at most hours of the day, and perhaps growing civilization will make the alleys all that they might be. In the meantime we will note that the alley here was not needed to give to the dwelling an agreeable site, with windows on three sides and plenty of space between those windows and the nearest lofty buildings. The entrance is turned full south and the sun shining first into the eastern windows, then all through the middle of the day on the front, and again for an hour or two while westering, makes the house in every way comfortable and wholesome. And this abundance of sunshine has affected a little the conditions of the problem, in one very interesting particular.

That matter of relative size of windows to wall space is so very interesting to the designer that we really must consider the conditions attending it. I take a photograph of a very recent house in Florence, a house of some pretensions, and consider the entrance front of it, which has three windows in each story. This house is, naturally, of the grandiose old sixteenth century type. I note that each one of the three windows of the *piano nobile* is relatively as wide as each of the two end windows of the Chicago house in the corresponding story—the story first in the brick walls. Now, if we should assume that width to be four feet in Florence and five feet in Chicago, then the Florence window has a height of very nearly 8 feet (the measurements being taken within the cut-stone casing), while the Chicago win-



FIGS. 1 AND 2.—THE MADLENER HOUSE.

Burton Place, Chicago.

Richard E. Schmidt, Architect.

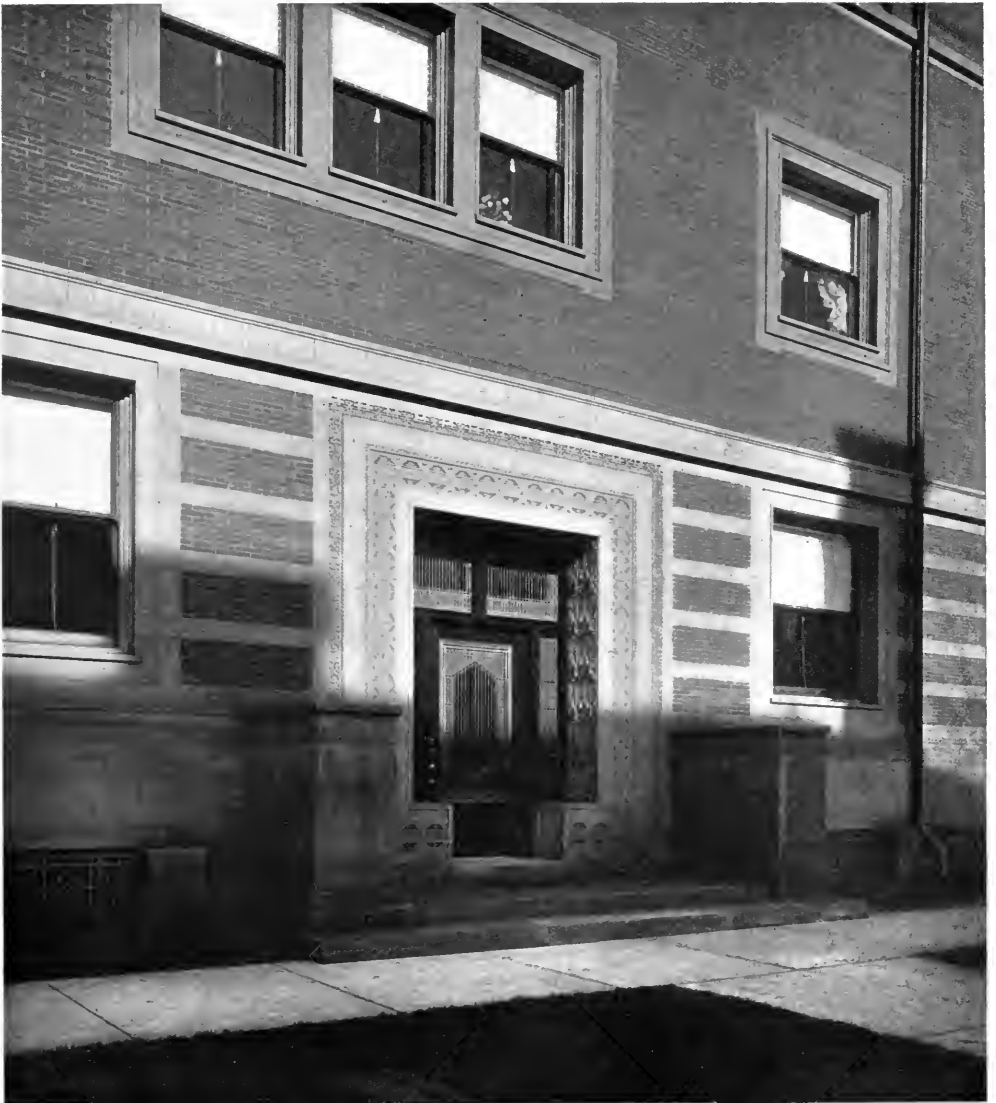


FIG. 3.—ENTRANCE TO THE MADLENER HOUSE.

Burton Place, Chicago.

Richard E. Schmidt, Architect.

dows would have only a height of 5 ft. 8 ins. But if the Florence house is built with that traditional and accepted *grand luxe* of the Palazzo—of the villa—which consists in lofty stories, a tradition dating from a time when those stories were roofed with vaulting very commonly and much vertical space consumed in that way, the Chicago house is treated differently. It is not grandiose at all, nor traditional in design; the windows are put where they are wanted; and the question is whether they are also of the size wanted. The American and the Italian designer, each in his own way, has recognized the extreme value of broad spaces of wall, and has recognized that in no manner can those broad spaces be made so useful to his effect as where they are disposed between window-head and window-sill. In that Chicago house it would be better for exterior effect to put a narrow window in the middle of each pier than to diminish by an inch the width of the broad band above those windows. The mind can associate solidity and gravity and broad, sunny surfaces of wall with a building whose horizontal band of windows is an almost continuous arcade or series of openings of any shape divided by the merest mullions, but it cannot dispense with the broad band of masonry above the lintels or the arches and below the sill-course next higher in the front. So that the Chicago house is fortunate in its exterior design in just the way which is generally shut against effect in American exteriors.

But now when we think of the interior, are we satisfied to have the window-heads so low in the room? What is valuable in a window considered as a part of the interior treatment of a room is its capacity for admitting day light, and the upper half of it is worth many times as much as the lower half. A window of ordinary height, as in the room of the common dwelling house, a window which we may take as being six feet high in itself and with its head 8 ft. 6 ins. above the floor, has a whole row of panes of glass at a higher level than the highest glass of these large windows in

the Chicago house. I am taking the windows of a very commonplace second story in a city dwelling, and we all know that these run very even. The head of the window opening is 9 ft. 1 in. above the floor in a story 11 ft. 1 in. high; whereas I cannot see that the window-heads of the rather stately Chicago house are more than 8 ft. from the floor, either in that story first above the ground floor and assumed to be the most important architectural story in the house, or on the ground floor, where, it appears, the living rooms are placed.

The reader will understand that I am merely setting down what seem to be the facts, and commenting on them as the expression in solid form of a taste which is not often gratified in our American house fronts. It is perfectly admissible, altogether praiseworthy, to employ these means for securing the admirable—the desirable—effect in the exterior, of which there has been mention above; but it is always interesting to note what you lose when you start to gain something; and in this case you lose the most valuable part of the daylight, namely, that which comes from the sky itself directly through the top of your window when that window is of the usual height. If your house is full of works of art you suffer the more from this horizontal admission of light, which in that case comes by reflection from the lighted surfaces around—house walls chiefly—and hardly at all from the sky. A house so well situated as this, with windows on three sides, is exceptionally well off, but even this fortunate condition will not give us what we want, the light taken straight from the blue sky above. Accept the situation manfully! Make no complaints nor bear on hard in your criticism. The architect and the owner together have a perfect right to say what they will sacrifice for the sake of something else. Of the persons who consider this subject with me, one will say at once that he could not endure these conditions for a moment; that at any cost, any injury to the exterior, he would cut those windows higher and would, while he was about it, bring



FIGS. 4 AND 5.—THE LIBRARY AND THE DINING-ROOM OF THE MADLENER HOUSE.
Burton Place, Chicago.

Richard E. Schmidt, Architect.

them within 18 ins. of the ceiling.* Another will, of course, say that he sympathizes with the persons who are responsible for the design which we are considering; and this is the mood of those who care greatly for external architecture considered as a matter of delicate proportions. In this matter, too, the treatment of the exterior in the way of color bands is fortunate, and helps the general design. The stone is Indiana limestone of the warmer hue, "buff Bedford stone," whereas that in the Schoenhofen Brewery Company's building (see the March number of the Record, p. 201ff.) was blue Bedford stone. The warm-colored stone is of a finer grain and is a very admirable shade. Our photograph No. 3 shows the delicate carving of the doorway jamb and casing alike and from these it is clear that the sandstone in question is an excellent medium for sculpture.

Fig. 4 is the only one of the interior views which shows at once a window and a door. But this one is sufficient to explain a reason which seems to have influenced the architect in the fixing of the horizontal line of the window-heads. It is noticeable in this photograph that door-head and window-head are on the same horizontal line. Now if one is determined to get that valuable feature—that equality of height which certainly tends toward simplicity of design, he must be prepared to suffer for it. Nothing so good can be had without a serious loss. The rule in our houses is to have doors perhaps 8 feet high in the clear and windows as high as the ceiling will allow them to be, and nearly all of our interiors are arranged with an acceptance of that peculiarity. One de-

signs a frieze to be painted upon a wall with an express provision for the doorway coming below it and the window-heads cutting into it—or else, if the frieze is much narrower, it is fitted in above the window-heads and a separate over-door panel is arranged above the head of the doorway. The room shown in Fig. 4 seems to have the head of its door and window alike at 7 feet 6 inches above the floor and this, while it is good for the door is, according to one point of view, at least two feet too low for the window, if we are safe in assuming that there is now more than four feet of wall space above that window-head. The room is seen in the photograph to be full of light, for the large window or windows which are not shown in the picture are admitting the light in great volumes, which is reflected and reflected again all about the room, especially upward from the floor and table and downward again from white or light-colored plaster ceiling. But in practice the delicate paintings on the walls cannot be receiving an adequate or an approximately uniform daylight. There are certainly many who would feel that no exterior effectiveness which is at all possible in a simple brick house without elaboration and without rich details of mingled sculptural and architectural effect, could make up for this diminution of precious daylight.

Fig. 5 shows the dining-room, while Fig. 6 on the next page shows the music room with its piano and striped wallpaper. And now it may be said that internal evidence arranges these rooms as follows: all being on the ground floor, then this ground floor is a few steps higher than the sill of the entrance door; in fact there is evidently the equivalent of a stoop between that entrance doorway and the vestibule and doorway within. The large room shown in Fig. 4 occupies the southeast corner; that is to say, the large single window on the right hand of the entrance door is at one end of it, and the triple window seen in Fig. 1 in the front facing the lake is in the middle of its long side. The

*It is sometimes urged that in a richly furnished house the top of the windows will be covered up with curtains in any event; but that is not always true. It was true perhaps, forty years ago; then the curtains were fixed once for all to their "cornices" and were separated at a height of four feet from the ground, making one of the ugliest shapes possible where they cut off the light of the window, viz., a high triangle with concave sides on a low rectangle; but that is so no longer. The rule now-a-days is to have the curtains on rings—that is to say, the curtains of heavy stuff. And assuredly where the owner has pictures or water-color drawings or bronzes or delicate porcelains to show he will want strong daylight upon them.



FIGS. 6 AND 7.—THE MUSIC ROOM AND THE HALL OF THE MADLENER HOUSE.
Burton Place, Chicago.

Richard E. Schmidt, Architect.

music-room, then, is next north of the large room and has another corresponding triple window on North State Street. The dining-room occupies the southwest corner; it has the double window seen in Figs. 1 and 2 and also the triple window seen in Fig. 2 and looking out upon the back yard. And we have only left to mention the photograph No. 7, which shows a part of the hall and the beginning of the principal stairway, as these possibly would appear to one who had passed up the inner stoop and through the vestibule door and entered the hall from the south. The fireplace, which is built of the same stone as that used for the exterior, is on the left, and on the western side of the person so entering the house the first step of the stairway is to the north of him and in face.

It has been suggested above that the merit of the exterior is chiefly in its carefully considered proportion. It lacks something in lacking chimney-tops, for a dwelling-house of decorative design without really aggressive chimneys always seems to need an assertion of its hospitable possibilities of warmth. The missing chimneys, moreover, cannot be replaced by any study of the photographs—where are the flues, where are the chimney-tops belonging to the large fireplaces shown in Figs. 4, 5 and 6? But this accepted and the house taken as a study in proportion as if for a warmer climate than Chicago, one where fires are scarcely required for interior comfort, the outside of the house will bear very close study as a piece of proportion, and as a piece

of impressive design within simple and indeed obvious limitations. Let anyone consider, for instance, the immense gain there is in the absence of all area, all open trench about the house, all appearance of a pit in which the house seems to stand. The greensward comes up to the water-table smoothly, the water-table has a great projection (seems to have 16 inches offset with a curved and moulded wash) and this carries a dwarf basement wall, a kind of podium without windows, from which another moulded offset recedes to take the face of the basement wall proper. That basement wall, then, is banded with stone in such a way that the bands of the harder material look like binders and tie the lower story of the house together in a thoroughgoing fashion. The top story, too, the uppermost row of windows low and small and evidently reaching only half way up the height of the large room which is probably "domed up" to fit the size of the great room for entertainment, has those windows so well tied together with stone courses at head and at foot, that the house finds itself divided in this way into a series of horizontal bands of extreme solidity of appearance. The result of this is that the unsupported, unattached windows of the middle tier may float as they please on the sea of brickwork and they will not seem to lose their anchorage and to float away. In all these respects the design commends itself as that which could best be asked for and could most readily be given in the case of such a dwelling as the one before us.

Russell Sturgis.

Some American-Made Fabrics.

Europe and the Orient no longer have a monopoly in the production of tapestries and rugs of surpassing excellence. Both are now being made with great success in America, and it is the purpose of this article to tell a little of the way in which these important industries were started on this side of the water and to describe and illustrate some of the better examples of both tapestries and rugs.

The credit of introducing the art of tapestry-weaving into the country undoubtedly belongs to Mr. William Baumgarten. In 1893 a single loom was set up in New York and the experiment made. The workers for the first attempt were secured in France only after much difficulty, but finally a sufficient number were brought together to make a start, and the work was begun with much enthusiasm and with promise of success. A year later, when it became apparent that larger quarters would be needed, it was decided to move the entire plant to Williamsbridge, which was accordingly done and a factory building with ample provision for future growth was erected. The selection of this site for the enterprise was most fortunate, as it was soon discovered that the waters of the Bronx, which flow past the door of the factory, possessed most excellent qualities for dyeing. These same qualities were found in the waters of the river La Bièvre in the Fau'b St. Marcel, near Paris. Here the Gobelins located their dye works in the fifteenth century, that golden age of tapestry-weaving which has left such a priceless heritage. The present Gobelin works have, however, long since ceased to use the water of the river, as it has become entirely unfit because of impurities, and it has been found necessary to supply by chemistry qualities which the Bronx possesses.

The tapestries made by Mr. Baumgarten compare most favorably with

those produced elsewhere. Indeed it has often been alleged that the weaving of these fabrics was actually done abroad. A number of large and beautiful pieces, designed and woven for the residence of Charles M. Schwab, were exhibited at St. Louis during the Exposition. The works has grown to such an extent that at the present time the factory contains 36 looms and employs about 75 weavers. Engaged not only in the manufacture of tapestries, but of fine carpets as well, made after the manner of the well-known hand-made Aubusson carpets—and this brings us to the second part of our subject, American made rugs.

From the Orient, whence rugs have come for many years, still come many and beautiful examples of the weaver's art, both modern pieces and those fabrics which have had a place in mosque or palace, and which are classed under the general head of "Antiques." In the shops of the big dealers in Oriental carpets one can find a large number from which to choose, and the colors and designs of many of these Eastern gems are a delight to the person who is furnishing a living-room, den or hall. But, as must inevitably be the case, antiques are becoming more scarce each year, and experts realize that no longer can the far East be depended upon to supply all the fine carpetings needed by architects and decorators in the furnishing of residences, hotels, clubs, houses and yachts. The looms of Europe in part make up the deficiency, many of the hand-tufted rugs for the houses of the wealthy being made there—often after special designs of the decorator. But now there are rugs being made in America, and a little history of this branch of American industry may be of interest to those who have always associated the far East with the word "rugs."

That some of the rugs made in the United States are as distinctively American as a Tabriz is Persian is perhaps



AMERICAN MADE TAPESTRIES EXHIBITED AT THE LOUISIANA PURCHASE EXPOSITION.



TAPESTRIES MADE IN AMERICA, EXHIBITED AT THE LOUISIANA PURCHASE EXPOSITION.

not generally known. The value of the Navajo blanket as a rug has of late years come to be quite generally recognized, and precedence must also be accorded it as the first American rug industry. These fabrics, woven by the Navajo Indians, can be traced in their development through the Aztecs to the Spaniards who conquered Mexico, and through them in turn to the Moors who

interested themselves in the cause, and now again the Navajo is being produced of good wool well dyed with vegetable colors, made for the most part from barks, roots and berries.

In introducing the Indian blanket into a room as rug, couch-cover or hanging, it must be allowed to dominate the color scheme, as its brilliant color, often scarlet, refuses to be subjugated by anything



THE TAPESTRY FACTORY AT WILLIAMSBRIDGE.

introduced as conquerors of Spain the art of rug-weaving from the Orient. While some of the modern Indian blankets are well made of good materials, the older ones, many of which are perfectly preserved, were of a finer texture, and of better color and design. The Indian unfortunately has learned the use of Aniline dyes, and a few years ago it seemed as though the blanket would become practically worthless. Some earnest workers have, however,

which the decorator can devise. Well used it is very effective in a den, living-room or billiard-room.

Other rugs which demand attention because of the conditions under which they are produced as well as because of their merit, are those made at Berea College in Kentucky, the Abenakee woven by New England women under the direction of Miss Helen Albee, and rugs made under the supervision of Douglas Volk, the artist, at his country

home at Centre Lovell, Maine. The Kentucky rugs are woven by mountain women on looms very much like the old rag carpet looms, of a material resembling coarse bed-ticking, dyed with indigo, madder and other native vegetable colors. The designs are similar to those of the Indian blanket, but they are made in a greater variety of colors and are well suited to summer cottages,

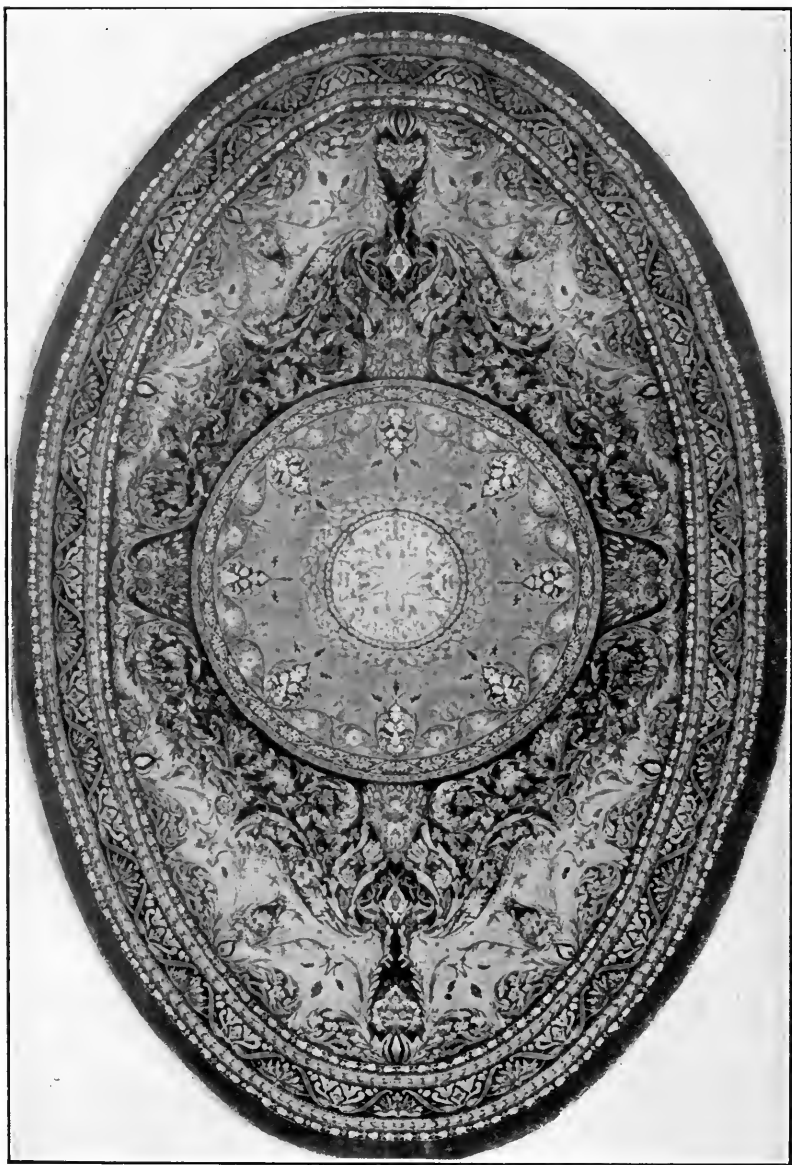
good materials. Finally, however, they were prevailed upon to make the trial, which was an instant success, and from that day the Abenakee has had a place all its own. In a letter Mrs. Albee states that this work has now been started in some form in almost every state, having been taken up by art and industrial schools, and in some cases by state and county institutions.



PAINTING CARTOONS FOR TAPESTRIES.

bedrooms and other places where an expensive floor covering is not needed. The Abenakee enterprise was started by Mrs. Albee only after great difficulty, as she found it almost impossible to interest the necessary workers in her project. The quiet colors which she offered did not appeal to the women of the New England towns, they preferring something lively and more striking, and characterized the rugs made after her pattern as being a "sinful waste" of

The name Abenakee is taken from an Indian tribe, of which the Pequakets were a branch. Thus the name is identified with that of the village where this industry was started, Pequaket, New Hampshire, and also in this name are these rugs proclaimed American. The rugs made under Mr. Volk's direction are meeting with great artistic success, and in design and coloring are suggestive of many of the most beautiful Oriental carpets. Mr. Wendell Volk, a



PERSIAN RUG OF AMERICAN MANUFACTURE.

This rug weighs over 200 lbs. and took five months to make. It measures 15x27.7.

son, has taken a great interest in the loom work, and has developed that phase of it to quite an extent and has taught it for the past two years at the Teachers' College in New York.

The Navajo blanket and the rugs made in these little communities in vari-

lines, has had a very different development. Twenty years ago, two Germans introduced the making of hand-tufted rugs in America. The project was started in Milwaukee, to which place were brought looms and experienced workers from Germany. The keen



PERSIAN RUG OF AMERICAN MAKE.

Size, 23x25. Made for the Mayor's Reception Room, in the New York City Hall.

ous parts of the country are interesting and valuable as far as they go, but the very circumstances of their manufacture limit the facilities at the disposal of the workers. We now come to consider an enterprise of an entirely different sort, which, founded on modern commercial

business sense which showed to these men the opportunity for success in rug weaving in this country held them to their task, though they met with much discouragement at the start. After two years of struggle in Milwaukee and constant effort to overcome prejudice



PERSIAN RUG OF AMERICAN MAKE.

This design was derived from an old Chinese vase in the South Kensington Museum. It is used on a stairway leading to a room containing the collections of an Oriental enthusiast.

against the American-made rugs they removed to New York, then, as now, the art centre of America, and interesting some wealthy connoisseurs, formed the Persian rug manufactory with works in that city. Up to this time the designs of the rugs from their looms were not pure nor the coloring harmonious, the former showing a mixture of mediæval and German Renaissance, not Gothic. It was soon proven that the time and money put into this enterprise had not been futile, as it was the entering wedge, and the public was in a measure prepared for improved products, which this company then put upon the market.

The Austrian Government Oriental Rug Exhibit held in Vienna in the year 1892 made itself felt throughout the world through its Edition de Luxe published by them at that time, showing prints and color reproductions of all that is finest and truest in Oriental carpets. Its publication proved a crisis for the Persian Rug Manufactory, and dating from the time of this exhibit correct designs and colorings came from their looms. Soon after this they sent their first exhibit of rugs to the Architectural League of New York, and to other similar exhibits in other cities, and a place and name was theirs, which has since stood from much that is best and most artistic in floor coverings.

When, not many years ago, the demand for period-furnishing began to make itself felt, it was decided to reproduce some of the most intricate and many shaded patterns in Chenille Axminster. The designs used in the time of Francis I., Henry II., the Louis, and the Empire demanded this new fabric. This departure was also successful, and the results well received, the demand increasing steadily. The architect or decorator of to-day is thus enabled to give the same consideration and obtain the same results in the color and quality of his floor coverings as in the textiles that he uses upon the walls. The trend now is so much for rooms in which the woodwork in wainscot and beams form the wall and ceiling decoration, that it is left

to the floor covering to strike the color note for the whole. For Elizabethian, Tudor and Georgian rooms rugs of correct design and coloring are made. Germany, France, Italy and indeed all countries and periods are drawn upon for designs. In the past three or four years a great interest has been aroused in the old Chinese rugs. These are characteristic and most interesting, and so closely are the really fine and old ones guarded by the families to which they have belonged for generations, that it is rarely one is found beyond the walled cities of the Flowery Kingdom, and in this country they are seldom to be seen outside of museums. Faithful copies of some of the finest of these have been made, which offer many of the best qualities of the originals.

The beautiful two and three toned rugs, in which the centre field is plain with darker borders, are particularly suitable to modern schemes of furnishing, which fittingly express the architectural meaning of rooms designed by leading architects and decorators. Rugs such as these add to the apparent size of the room. They are woven entirely in one piece, and of any size or shape that the dimensions and character of the room may require, and in any thickness up to an inch, in various qualities.

The dyes employed are wholly vegetable and fascinatingly soft and beautiful in tone. The dim old shades of the veritable antiques are secured without subjecting the rug to the heroic treatment which is said to be the lot of many of the imported ones.

It is interesting to note that as the standards of taste advance, as they are certainly advancing with respect to house decoration and furnishing in the United States, architects are more and more taking over the interior equipment of the rooms designed by them.

In these rugs, made here in our own country, can be found almost anything which the architect may need. Is a rug of a certain color and size wanted for a certain hall? Perhaps the dimensions are unusual or the colors difficult to find or both. To secure such a one ready made might mean an almost endless search. To be able to order it direct from domestic looms in the required design means a saving both in time and money.

For many years these rugs have been in use, standing the test of time satisfactorily, and undoubtedly the demand for them will grow, as people learn that those of American manufacture may be as durable and as artistic as the ones made in India, China, Persia or Turkey.

Margaret Greenleaf.



THE RESIDENCE OF J. R. DE LAMAR.
Madison Avenue and 37th Street, New York City. C. H. P. Gilbert, Architect.

Need of Fireproof Country Homes.

The construction of fireproof country homes represents the highest development of modern architectural and engineering art, for it requires the blending of the artistic and beautiful with the substantial and enduring. The destruction of country homes by fire forms a sad chapter in the history of the modern evolution of the home; but the loss of the houses probably represents less actual sorrow than the destruction of the interior furnishings and personal treasures. A man spends a life time of travel and study in the collection of rare curios, pictures and art treasures only to place them in a wooden shell, which within a few hours may burn to the ground. No money compensation can replace such priceless possessions, and the insurance money is a poor return for what represented so many years of toil and pleasure to collect.

The country home need no longer be built of wood, nor of other flimsy material to invite disaster. The age of fireproof homes has come for the country as well as for the city—for the poor as well as for the rich. Two things have heretofore militated against the general construction of fireproof homes outside of large towns and cities. One has been the cost, and the other the question of artistic excellence. Both of these objections are removed through the invention and construction of fireproof materials which are cheap in price and can be made artistic in treatment.

A country house can be built of modern fireproof material at a cost not much greater than that required for a wooden house, and the architectural features need in no way be sacrificed in the interests of permanency. Fireproof tile or burnt-clay material is moulded in all the forms and shapes demanded by architects so that any design can be followed closely. The artistic effect may be quite as beautiful in such a structure as though the house were

made entirely of wood. The cost of hollow tiling for house construction purposes has steadily declined in recent years in about the same proportion as the price of lumber has advanced. The employment of labor-saving machinery for moulding and drying the clay tiles has worked changes in the industry that promise great things for the future.

A number of houses have recently been completed in Pittsburg which are fireproof and ready for occupancy; they cost \$4,500 each. Before the contracts were let, open bids were made for their construction, and the lowest of these for wood in place of fireproof material were \$4,000 and \$4,125. In Washington a fireproof house that cost \$5,186 had one bid for the old-fashioned wood framing at \$5,875, reversing in this case the general idea of the cost of the two classes of houses. As a rule, however, the fireproof house costs from 5 to 8 per cent. more than wood frame houses in the country. This may be figured out as follows: The ordinary floors of rough wooden timber, with 12-in. joists and a top floor of finished pine, costs about 28 cents a square foot. This is the kind of floor used in the cheapest class of dwellings. In higher class city houses a couple of inches of cinder concrete are placed between the floors to deaden sounds, and a narrow strip maple flooring put down instead of pine. This brings the cost up to about 40 cents a square foot. Similarly partitions of two-by-four wood stud, with wood lathing both sides and plastered, cost about twenty cents a square foot. Such prices differ somewhat in various parts of the country according to the price of lumber and labor, but it is only a matter of a few cents per square foot in any case.

Fireproof construction of heavy tile flooring, finished with incombustible plastic flooring, such as granolithic or asbesto-lithic, with the underside of the floor plastered, costs from 26 to 30 cents

per square foot. This means the very best work, finished in the most approved style. If modern hollow tiles are used for the partitions and plastered both sides, the average cost will not exceed 20 cents per square foot. Such floors and partitions will be not only fireproof, but practically sound-proof and vermin-proof. Brick and terra cotta exterior walls cost a little more than wood, and this part of the house would raise the average price five per cent. higher, except in localities where brick and terra cotta materials are cheap. In a number of the states manufacturers of both brick and terra cotta building material guarantee to supply their products at the same cost per square foot as good seasoned lumber.

Once satisfied that fireproof country homes can be constructed in the most artistic way at nearly the same cost as wooden houses, the public will quickly perceive the value of houses which will protect them from fire. The wooden house represents a crude stage in the art of building; it is little better than a shell that is subject to injury by fire, storms, and heat and cold. It cracks and warps in summer and winter; it permits wind and snow to creep in; it decays rapidly in all climates, and when fire once touches it complete demolition follows. Insurance rates are so high on country wooden homes that not more than a small percentage of the owners feel able to carry full insurance on the risks. The life of a modern wooden house may be anywhere from fifty to a hundred years—the latter being reached only where annual expenditures are freely made to protect it from the elements and ordinary wear and tear. The early colonial buildings owe their long life to the careful selection and drying of the hardwood timber obtained from the primeval forests. There is very little such lumber to be obtained to-day, and when it is offered for sale, prices are almost prohibitive.

Therefore, it is hardly possible to construct wooden houses to-day that will last as long; and prove as serviceable, as those which the early settlers

built. Each year the supply of adequate material for wooden houses of permanent value diminishes. The only possible solution of the question is to turn to the brick, stone, and other fireproof material manufactured so abundantly in this country. At the best the home becomes an imperishable monument to the skill and wisdom of its builder.

The general comfort of the modern country fireproof home must also be considered. This is no unimportant feature of the new field of architecture. The housewife will appreciate a home whose walls are practically sound-proof, moisture-proof, wind-proof, and vermin-proof. The air space between the walls of the hollow tile deadens sound and minimizes every jar and vibration so that the ordinary noises which disturb those with sensitive nerves are not present. Outside noises are also lessened to a degree that is highly satisfactory. But the question of sound-proof is probably of less importance to the country dweller than to the city inhabitant, but there are other qualities which appeal to the rural inhabitant.

In winter the burnt-clay walls, with their system of hollow tubes running between them, are better protectors against wind, snow, rain and cold than wooden walls, while in summer the heat is equally tempered to a much greater degree than in the ordinary house. This is no question of guesswork, but of actual test. The saving on the coal bill for heating such a fireproof house runs from twenty to thirty per cent. In addition to this the saving on insurance risks is sufficient to form a considerable item of economy in the course of a few years. In exposed parts of the country where the winter winds are peculiarly severe a wooden home is a temporary and insecure habitation.

Burnt-clay products are manufactured in a great variety of shapes and sizes for building purposes. The art and science of to-day are converting these into building materials that eclipse anything heretofore invented by man. Machinery and improved methods of manufacture are more than counterbal-

ancing any increase in wages. The supply of raw material for these fireproof materials is almost unlimited; the exhaustion of the clay pits and mines appear as improbable as the exhaustion of our coal mines. Somewhere in the next thousand years or more there may be a dearth in the available amount of clay suitable for manufacturing into building materials. In the past twenty-five years lumber has advanced over one hundred per cent. in price, and in the next half century it may be expected to make an equally startling change.

The country home built of hollow fireproof burnt-clay tiles is not only a protection against fire, but it serves to add permanency and substantial endurance to the home which cannot be obtained in wooden structures. A man builds a fireproof house for all time, storing his art treasures and books in it for future generations, knowing that he will leave behind him a visible token of his life as expressed in such rare collections. There is a stimulating ambition to collect and gather for those who are to follow. The dread of fire loses much of its terror, and penetrating it appears almost impossible to keep the temperature of west and northwestern rooms high enough for comfort. Modern fireproof buildings properly constructed facing lakes and the ocean have amply proved the superiority of this mode of building. In the summer season the heat enters the house much slower when built of hollow tile. Summer cottages built by the seashore are thus made cooler in hot weather and less liable to deterioration by the salt air. The saving in paint in such cottages is an item of no insignificant importance.

The ordinary wooden house offers every inducement for vermin to breed in the walls and partitions, and that they do it in nearly every home is quite evident. In the burnt-clay walls there is no chance of mice or other vermin finding lodgment. It is impossible for them to gnaw their way through, and there is no inducement offered when they once get inside. Consequently, the fireproof walls are practically vermin-proof, and

residents in the country find one of the most troublesome nuisances thus eliminated. From a sanitary point of view the fireproof structure is pre-eminently desirable. Any overflow of sewerage, water from drain pipes, or waste fluids of any kind, can be carried away without staining and soaking into wood work. In the case of contagious diseases the tile walls offer no lodgment for germs, and when the sick rooms are properly cleaned and disinfected the house is as pure and healthful as though sickness had never visited it.

The modern fireproof private residence in the country is built without expensive steel and iron framing. It is the elimination of the steel part that has made it possible to construct private residences at a cost no greater than that of wood. While the large city houses and commercial buildings require the steel framework supports, the country house is spread over so much ground, and offers so little actual resistance surface to the high winds, that its stability and permanency are not weakened by the absence of steel columns and frames.

Both the partitions and outer walls are built of hollow tile, which are locked together by modern inventions so that they are more solid and substantial than the wooden frames of houses. The latter will warp and shrink, but the former do neither. The floors are also built of hollow tile, supported on the partitions of the same material, and joined together at the ends, corners and sides by steel interlocking inventions which make a perfectly indestructible joint. With the floors forming a solid block of hollow tiling that are absolutely fireproof, dust-proof, sound-proof and vermin-proof, the home becomes a permanent structure that may well be termed indestructible and imperishable. From the roof to the basement, the building is built of fireproof tiling, and a conflagration once started in it could easily be confined to a single room.

It may not be desirable to observe the same precaution in a private residence as in a public one, and the equipment of the interior can be made to suit indi-

vidual tastes. It is generally sufficient that the walls, roof and partitions are made of fireproof material. The furnishings of the interior can then take whatever form and character desired. Wood trim, doors, closets and dados can relieve any austerity of design that may have been imparted to the rooms by the fireproof material. But even this is unnecessary. Perfect imitations of wood carving are made for trim, doors, ceiling and dados, so that it would require almost an expert to detect the difference. Both warmth and artistic beauty may be obtained in using fireproof material and metal for nearly every part of the interior trim. Metal-lined, fireproof doors are manufactured to imitate carved wooden ones, and they open and close with as much ease and noiselessness as those built of hard or soft wood. Metal ceilings that are as artistic in effect as any designed in plaster are attached to the overhead tiling, and they have the advantage of never falling or cracking, while in times of fire they would offer a stout resistance to the spread of any flames.

The old flimsy wooden firetraps of country homes are thus nearing the end of their reign, and from the cities the craze for building fireproof, permanent structures will quickly extend to the country. In the next decade the building of anything except fireproof residences may become prohibitive within the corporate limits of a city as to-day it is to construct anything but houses of brick or stone. Similar building laws may not be adopted in the country districts, but as a matter of self-protection and self-interest the individual builder will learn to resort to such perpetuation of his home structure more and more as he realizes its value.

The whole question of home building in the country and suburbs is undergoing rapid evolution and change. Life in the rural districts is made comfortable and home-like only through proper building of houses, which will be as convenient and comfortable as city habi-

tation. The electric cars and improved methods of rapid transit cannot develop the country for all-the-year-round living, unless the character of the homes is consistent with modern needs and demands. The heating, lighting and protection of the rural home are matters of absolute importance, and to their proper solution must the future of rural communities look for future growth and expansion. The cost of heating in fireproof homes is rendered so uniformly economical that nearly all systems of steam, furnace or hot-water must eventually be planned with special reference to the construction of walls, ceilings and floors.

Likewise the lighting of individual houses that are absolutely fireproof requires less expenditure in equipment. The wiring of such buildings is rendered peculiarly simple and economical for the simple reason that little inflammable material comes in close contact with the wires. The use of insulation is thus greatly lessened, and the danger minimized. Even with the best of insulation, fires from electric wires are started if inflammable material is placed anywhere near the circuits. By inclosing the wires in fireproof hollow tile floors or walls, the danger from fires even when wires are short-circuited is almost infinitesimal.

The sense of safety and security of life and property are after all the most important asset that the individual householder can possess. Peace of mind makes the home a place of comfort and happiness. The fear of fire and loss of treasures must always prove irritating and unpleasantly annoying. The practical elimination of such fears from the mind adds contentment that few other gifts can give to our lives. In the past the city inhabitant, living in his fireproof office buildings, hotels and apartments, has possessed this priceless sense of security; in the near future the individual household of country and city may gain the same protection and permanent peace of mind and spirit.

Geo. E. Walsh.

NOTES & COMMENTS

A WAREHOUSE IN JERSEY CITY.

In the Architectural Record for February, 1904, Vol. XV., pp. 131, 132, there are descriptions of two warehouses built by Mr. Jarvis Hunt, the architect, for the firm of Butler Bros. Those warehouses are in Chicago, and stand in that crowded and mercantile section of the town which immediately adjoins the Chicago River, the real harbor of the port. Now Fig. 1 presents a photograph of a similar building designed by

the same architect for the same owners, much in the same style, but not further away from our publication offices than Jersey City. This retention of a style of design once fairly accepted is an excellent thing, which speaks well for the strength of purpose and consecutiveness of mind of the architect and of the owners. But there was also mention in the article referred to above of a warehouse in Chicago designed by Mr. Hunt, which seemed at the time more attractive even than those of Butler Brothers. This was the Kelley Maus Building, and the photo-



FIG. 1.—THE WAREHOUSE OF BUTLER BROS.

Jersey City, N. J.

Photo by A. Patzig.

Jarvis Hunt, Architect.

graphic illustration is to be found on page 133 of the volume named. And it is pleasant to see that the best characteristics of the Kelley Maus building are reproduced in the Jersey City warehouse, which is now before the reader—see Fig. 1—combined with what was most important in the design of the twin warehouses at Chicago. Color is not the prominent feature in the Jersey City building, and in place of it there is used that breaking out of masonry of common square bricks, into shadow-casting string-courses, with and without the alternation of dentils with flat wall, with which motif we have grown familiar, lately, in studying the buildings of several other architects, especially those of Mr. Richard E. Schmidt. Remembering always that there are such things in the world as moulded bricks, and that they are not expensive to produce or to deal with in actual practice, one is still glad to see this constant recurrence of experiments with the ordinary hard brick of commerce. The very best is done with that not very promising material, and the reiteration of such designing is an admirable thing, helping greatly, as it does, in our slow advance in intelligent design as a rule of daily practice.

In all these buildings, eastern and western (if Chicago indeed be a western city), there is to be noted a rejection of any theory concerning the lintel-construction of the brick walls. What is the system of building? How does the square head of the window maintain itself and carry the superincumbent weight, slight as that weight may be—the weight of the bit of wall between lintel and sill which is perhaps eight feet high where the unbroken bands are widest? Of course our modern manufacturers of metal offer at low prices the old-fashioned cast-iron lintels, and, at a higher price, the more truly economical wrought-iron flange-beam. But if this device is used, it can appear only to those who approach it close and look up at the soffit of the window head. It cannot show in the photograph, and it is therefore beyond our ken.

That the whole design is not clear to the one who views the building from without; so far the design is faulty. That the building would be in every way bettered by strongly marked lintels, or by flat arches with slightly radiating brick voussoirs, becomes evident by taking it as it is and assuming the presence of an adequate non-concealed support for the wall above the window-openings. It is still a most interesting exterior. The brick cornice of very slight projection, just enough to carry and conceal the gutter, harmonizes with the general

scheme of the brickwork as neatly as that of the Chicago twin buildings, and better than that, because having to start from no diapered colored wall, but piers deeply recessed with decorative brickwork. It is to be noted, too, what an excellent doorpiece has been made, by simply projecting a part of the brickwork eight inches, with an offset of that depth on either side, and with some mouldings to disguise it at the top. R. S.

THE CARLETON BUILDING.

Notes and Comments this month must find room for comment upon two buildings not highly architectural. Each has its peculiar and very marked connection with the building of the New Time, in which steel does the work, and masonry does the filling and the covering—or most of it. But each attacks the problem in a way very different from that followed in the other design.

First, of the Carleton Building in St. Louis, that of which the sign over the door, dimly made out, is "Carleton Dry Goods Co." In this building the structure seems to be perfectly well accepted as the motive for design, except only in that framing of each of the great wall spaces, to which motive there has been reference in former notes. As perfectly as in the Monadnock of Chicago, and in the Prudential of Buffalo, the steel columns are marked by their prolongation through the show windows below, up to the brickwork jackets above. As perfectly as the most ardent realist could desire, the windows and the thin panels between, taken vertically, are recessed between the square projections of the brick columns. The corner piers are emphasized by the brick-moulded or terra-cotta ornamentation of the arris itself, and the subordinate, decorated mouldings, one on either side; and it is not until the eye reaches the top of the main wall, 120 feet or more above the sidewalk, that these subordinate uprights are mitred and go off horizontally, as described below. Again the attic story, itself a row of windows, of full size and occupying panels between great consoles which carry the overhang of the cornice, is a well-imagined culmination of the growing design; larger in its parts below, growing smaller as it ascends, and ending in this ten-foot story of strongly marked horizontal limitations. If, instead of a photograph, there were offered to the reader a slight outline drawing of the structure, it may well be thought that these truths only would be not-



St. Louis, Mo. BUILDING OF THE CARLETON DRY-GOODS CO.

able in its external aspect, and then there would be nothing but praise for it, because indeed the bare and blank surfaces of the architectural basement—of the two lower working stories—can only be accepted without comment as the necessary treatment of a business building with a retail side to it. Where you must show your goods to the passer-by, most other considerations have to give way. And so if this photograph be looked at from a distance so great that the student cannot see the smaller details, he, the student, would feel that he

cause the larger the building is, the more this framing of each of its walls tends to make those walls look as if they were about to separate at the corners and fall forward, each into its own street. In the Carleton Building the matter is greatly helped by the strong horizontal line at the top, the line made by the projecting wall, with two square edges and the face of it, at least twenty inches wide, adorned with a sort of fret. That band goes for much, and the great shadow of the cornice counts for even more; but those details are far above the eye, and



FIG. 3.—BUILDING FOR JOHN H. WHITTEMORE.

Chicago, Ill.

Dean & Dean, Architects.

had a good thing before him—a really attractive business building. The mischief of it is in the things which are intended for ornament, which, whether they are of thin cast iron or still thinner zinc or tin, are detestable in form and in the leafage and scroll-work with which they are charged.

One word about the treatment of the two visible walls as each a framed picture. In dealing with the Schoenhofen Brewery, in the March number of the *Architectural Record*, it was suggested that this survival of an old decorative impulse was unfortunate, be-

the surbase of the architectural basement story, that on the frieze of which is painted the letters of the sign, is a great way from the top, leaving the framed wall of which we treat apparently unsupported. It is possible, indeed, to make too much of this peculiarity in a design, but it is not worth while to mention it at all unless it is explained in full. It does not keep the building from being attractive, but it takes away from its permanent charm, as depriving it of unity and of something of its apparent solidity.

The corbel-like ornament at the head of

the piers and supporting the first projecting string-course, the little sculptured masses upon them, with cartouches and capital-like topping out of each of the brick coverings of the steel columns, and finally the main entablature, with its enormous consoles, its unevenly spaced lion-heads above, its anthemion triangles rising against the sky, is all of it poor, and lacking in significance, unfortunate in separate design, and in its effect upon the whole mass. It is hard to see a fine design so marred by superfluous ornament tacked on to the otherwise completed building.

THE WHITTEMORE BUILDING.

The other business building to which there was reference at the beginning of the previous note, is indeed a complete contrast, for here the practical requirements have governed everything, and the structure shouts itself aloud. This is the Chicago building of which one-half, on the ground floor, is occupied by the "Chicago Coach & Carriage Co.," and it is called here the Whittemore Building, from the name of its owner. Here every practical consideration is allowed its full weight. The wall is all glass except for very slight lintel courses three times occurring in the height above the store-front. The piers in which are concealed the steel columns are splayed on either side, so that all possible daylight is obtainable. The piers are seen to carry at top low arches of triangular form, of brickwork with keystones of white material, and between these are uprights like triglyphs, which undoubtedly have to do with the structure. The brick projecting wall above this may be taken as a mere masking of the gutter.

Now there is no one of these features which, when occurring in his own practice, the architect of our time should not study carefully and treat of as great importance to his design in metal-framed building. It is far better, more dignified, more worthy of an intelligent man to treat them as crudely as they are treated here—even this—than to ignore them altogether and to cover them up with the details of a sham neo-classical façade. Still, the purpose of the artist will be, of course, to make them into themes for his decoration; he will see in them opportunities for design. To turn them out of doors without artistic treatment, as is done in this front, is not architectural. This, of course, is no reproach to the designers of the building before us; the owner and the archi-

tects between them have a perfect right to reject from their programme architecture in the usual sense of the word as decorative building, and to offer such a front as this instead of one more elaborately composed. The comments here are descriptive merely—are accounts of what is to be found in the front before us. And it is to be hoped that Messrs. Dean & Dean will have another such chance to build a perfectly realistic business front, and will then be inspired to take the next step in artistic progress and to *design it*, making what is here a mass of unrelated parts, all valuable and necessary in themselves, into an artistic construction. R. S.

SCULPTURE IN TOWNS.

A recent article in "The Craftsman," on municipal sculpture, roundly scored American cities for neglect of this form of civic art. It is hardly to be supposed that cities can be scolded into successful art attainment; but as far as sheer neglect goes, there are indications that the article, if not somewhat out of date to begin with, is now getting very much so. The acquirement of several interesting pieces of sculpture by towns and cities has been chronicled in this department in the last few months, and the movement goes steadily forward. At the annual meeting of the Fairmount Park Art Association—that remarkable municipal art society of Philadelphia which has more than \$100,000 in its permanent fund—the principal address was made by Mayor Weaver and was a plea for the erection of a monumental fountain in the courtyard of the city hall; in St. Louis the Civic Improvement League early took steps to obtain for the city some of the sculpture of the exposition; in Baltimore it is announced that a fountain and statuary are to be features of the park in front of the new custom house; while in little Palladium, Mich., the newspapers—directly stirred, it is said, by "The Craftsman" article—have been agitating for a grass plot adorned with sculpture at the beginning of the principal street. Who would have thought of Palladium taking the reproach to itself! and who can avoid a sense of dread at small towns "going in" for sculpture? But the affair is quite reminiscent of the spirit of the Renaissance, and the news that a Chicago lumber merchant has left to the Art Institute a fund of \$1,000,000, of which the interest is to be spent for the erection and maintenance of statues and monuments in the public places of Chicago, is quite worthy of the merchant princes of Florence.

THE LAZARUS SCHOLARSHIP.

The committee in charge of the Jacob H. Lazarus scholarship, for the study of mural painting, has sent out an announcement that the triennial award is due again this year. The winner of the competition, who must be an unmarried male citizen of the United States, will be sent abroad for three years on a sum of \$1,000 a year. The first thirty-four months must be spent in Italy. The winners in the past have been, respectively, George W. Breck, A. T. Schwartz, and Robert K. Ryland, all Southerners. The members of the committee are Frederic Crowninshield (chairman), J. Carroll Beckwith, Edwin H. Blashfield, George W. Breck, A. D. F. Hamlin, Francis C. Jones, George W. Maynard, A. T. Schwartz, and Edgar M. Ward. Candidates must notify Phillip C. Sûs, National Academy of Design, by October 1st.

CONFERENCE OF CIVICS.

The department of congresses of the Lewis and Clark exposition in Portland, announces a conference on civics, to be held from August 14th to 22d. On the first three days problems of general interest will be presented and discussed. On the succeeding three days there will be held meetings, attended by representatives of the incorporated cities of the Pacific Northwest. At these, concrete problems in municipal government will be considered. The program may be summarized as follows: First day, How to fight corruption in cities; second day, Social betterment work (including the suppression of vice and the control of the liquor traffic); third day, Municipal improvements, (a) practical, (b) æsthetic. Specific matters that are to be considered on succeeding days are: The organization of a League of Northwest Cities, home rule, the control of corporations, municipal ownership, taxation, accounting, and administrative law. This is a pretty full program. One can hardly expect vital contributions to any of the subjects in the brief time allotted to each and amid the distractions of an interesting exposition. But the constructive work promises to be the organization of the League of Northwest Cities, and in subsequent meetings time may be had for deliberation. The League of California Municipalities, indeed, is one of the most successful in the country, for new civic ideals are thoroughly at home on the Western coast.

ABOUT GLASS HOUSES.

An architect in Des Moines, Iowa, Mr. C. B. Eastman, has been trying to persuade the Des Moines National Bank to erect a new building which the bank proposes to build, out of wire-glass. His plan of glass construction consists of two walls of opalescent wire-glass attached to a steel frame work. The walls are approximately a foot apart, making between them an insulating air space to prevent the loss of heat in winter and an excess of heat in summer. The advantage of this method of construction would be, according to its inventor, that windows could be completely dispensed with, which would give the architect a fine opportunity for an efficient interior plan and an interesting exterior design. In a city like New York in which light is so valuable, glass construction would have the additional advantage of providing all the light which was necessary.

It is not, however, the wire-glass house as a system of construction which interests us in this connection. As a system of construction there is much that is dubious about Mr. Eastman's idea; but should it ever be carried out, it would be an enormous success as a breaker of proverbs. There is a proverb, for instance, with which we are all familiar, to the effect that people who live in glass houses should not throw stones; the idea being that the habit of throwing stones, in case it became general, would be a bad thing for glass houses. But if the new system of wire-glass construction should become general, there would be more reason why a bank president, who was preserved in a wire-glass house, should not be as free to throw stones as if he lived in a brick house. The habit of throwing heavy stones is, of course, to be discouraged in the interest of the owner of any house; but a stout piece of wire-glass construction would not be damaged by small stones, and the proverb might be changed to the effect that people who lived in wire-glass houses should not throw big stones.

There should be no objection to a sensible modification of the proverb, because it has on occasion already been tampered with. A New York wit has suggested that the most necessary precaution for a person who lived in a glass house would be to pull down the blinds. But here again the proverb-maker was leaving out of account the wire-glass house. A bank president, or a life insurance director, who lived in a wire-glass house need not pull down the blinds. Indeed, he

could altogether dispense with them. The wire-glass wall would conceal his private transactions for him quite as effectually as if it were made of stained glass or of brick. Such is the effect of new inventions on time-honored precepts.

WASHINGTON ADVISORY BOARD.

In a discussion, technical and quite incidental, concerning the compensation of the "consultative board" which the President appointed to pass upon the location and plans of public buildings in Washington, the newspapers and the people lost sight of the true significance of the move. This is curious, for the appointment added an interesting chapter to the efforts in behalf of a more beautiful Washington, and the members of the board were perfectly willing to serve—as they now may—without any compensation. In an executive order, issued March 14th, with the approval of the Cabinet, Mr. Roosevelt created a board with whom "whenever discretion is conferred by law on the head or heads of any department, on the Commissioners of the District of Columbia, or on any other executive officer or officers, to fix the exact position of a public building in the District of Columbia and to approve the plans for the same, he or they shall confer." The order continued: "It is intended through the recommendations of the board to bring about harmony of design in all future public buildings, and conformity to an artistic system of improvement based on the original plans for laying out the capital. The examination of the board of architects should be confined to the location and the artistic effect of the exterior of the buildings." The appointees to the board were the members of the Washington commission of experts, plus Bernard R. Green. But even without the names, it is clear that the President's purpose was to block the way to such performances as that of last year, when a desperate effort was made so to locate the new building for the Department of Agriculture as to intrude it a hundred feet into the Mall, planned by the commission to extend from the Capitol to the Monument. This was the feature of the plan upon which the hardest work had been put, for this the Pennsylvania Railroad was to be removed, and to ruin it would be to defeat the commission. Yet only an energetic protest, started by the A. I. A., but eventually representing the artistic intelligence and public spirit of the country, frustrated the scheme. The truth is, the House

has from the first been jealous of the expert commission, because the latter is a Senate creation; and the President, realizing this from last year's episode, has taken this means of enforcing respect for its decisions, while his executive order recreating it, changing its name, and making a single addition to its personnel, made it possible for the House to defer to it without violating self-regard. In doing this, Mr. Roosevelt gave evidence of his sincerity when, in addressing the Institute a few weeks previously, he had announced his great interest in the plans for a more beautiful Washington. As for the controversy which so successfully distracted attention from the really interesting feature of the order, it may have been started in an effort to checkmate the President's move. The order stated that the members of the board should serve without pay. It was pointed out that such appointment was illegal. It was then ordered that its members be paid \$10 a day while actually serving. The salary could not be paid, it was said, without congressional appropriation, and under the circumstances that was doubtful. Accordingly the President then announced that he would call the appointees to the White House, when occasion arose, to confer with him, merely as public spirited citizens; and that he would be guided by their advice. This was not a very substantial basis for the board, though it promised to answer as long as Mr. Roosevelt was president. Lately, however, an anonymous assertion has gone out that Mr. Cannon has said he would accept the situation and allow the Congressional authorization of the consultative board.

CHICAGO MUNICIPAL ART LEAGUE.

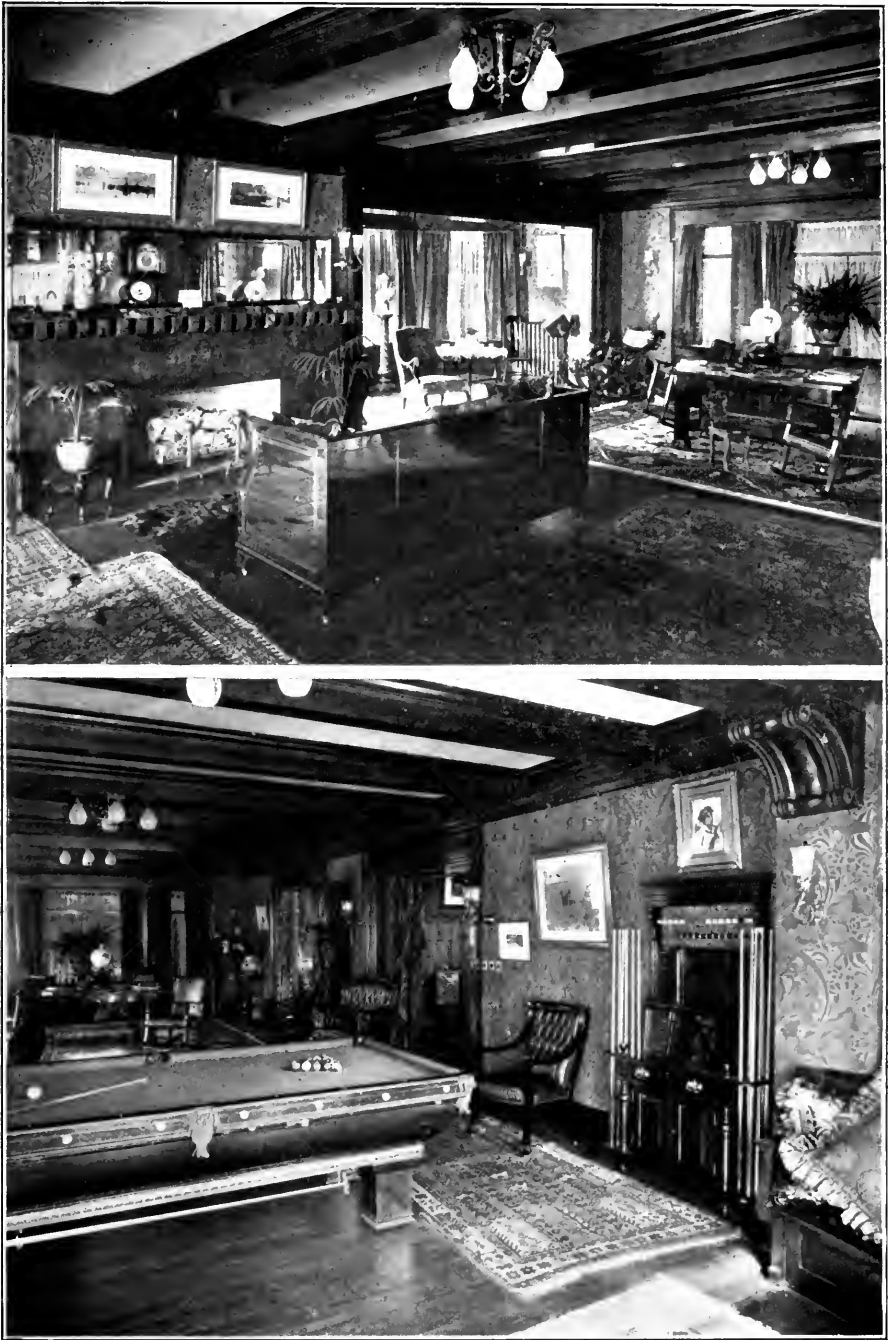
The Municipal Art League of Chicago has issued its annual Year Book, in due observance of its fourth birthday. The age of four years is not great, but it is interesting as showing that the society is more than a mere "flash in the pan," and yet that it is young for one so vigorous. The report of the treasurer shows receipts for the year of \$2,249, and a balance in the treasury better than has been reported at the end of any preceding fiscal year. In the annual exhibition of Municipal Art, conducted by the League, nearly fifty local societies co-operated. It is interesting, in looking over the year's record, to note that through the representations of the League the city council ordered all unlawful signs removed from

the stations of the elevated railroads, and refused them a franchise for the display of billboards; that the South Side Elevated Railroad Company consulted the League as to the color to be used in repainting its structure, and adopted the color recommended, and that definite steps were taken to secure the city's recognition of civic art in the new charter. It has been proposed that the League secure funds this year to employ a committee of experts to make plans for the comprehensive improvement of the city. The report says in this connection: "The park boards are now acting independently. Sites for future public buildings are being discussed without any consideration of their relation one to another, or the convenience of the whole people. River improvement is in charge of the Drainage Commission, only so far as the necessities for drainage are concerned. The city has legal relations with the general government, so far as navigation and commerce are concerned, which are never settled. The railroads have practical possession of one-fourth of the city, and the whole intra-mural (sic) traction problem is still in the air. The opening and widening of streets are projected only for the personal interests of individuals." This is a fairly accurate report of conditions in most cities, and makes a strong plea for the adoption of a comprehensive plan to work toward.

**A BILLIARD
TABLE
IN A
LIVING ROOM.**

Interior decorators are sometimes confronted by queer problems. In a very attractive house, built recently in a western town, the man of the family had but one request to make—his living room must also be the billiard room. He did not wish to

"go under the roof or down in the cellar to enjoy a game of pool." It seemed to him a small thing to insist upon. The room was designed by his architect to accommodate the table, the dimensions were 32 x 40. One end was filled by a great circular bay window. Architecturally the room was admirable. The woman whose part it was to live up to this design in the decoration and furnishings, found this very excellence most alarming. Always in thinking of the room she was faced by the billiard table—by a mass of solid, vivid, uncompromising green. How to tone it, how to treat the walls and windows, how to subdue it? Futile searches for wall paper and fabric in neutral tones which would be harmonious, took her daily into the shops with her square of green billiard cloth. With complete discouragement came the inspiration to feature the table—to make its strength the motif of the room. The woodwork was beautiful mahogany—more brown than red—and the paper she decided upon an English one in two tones of pumpkin yellow. The windows were hung with creamy net and straight over draperies of yellow velvet, from which the strong color of the walls was eliminated, but which was perfectly harmonious. Heavy pieces of mahogany furniture were chosen, and the wide Davenport lounge upholstered in green velour, which was but a shade less vivid than the billiard cloth. Great ferns and palms placed on low, black teak wood stands, reproduced the green in various portions of the room. The mantel was of green and black marble, and above its length a long, low mirror reflected the vista of the hall; in front of it was stretched a fine black bear skin. In consequence of these arrangements it is hard to realize in looking upon it that it is the outcome of a dilemma, and not a carefully planned handling of masses of difficult color. M. G.

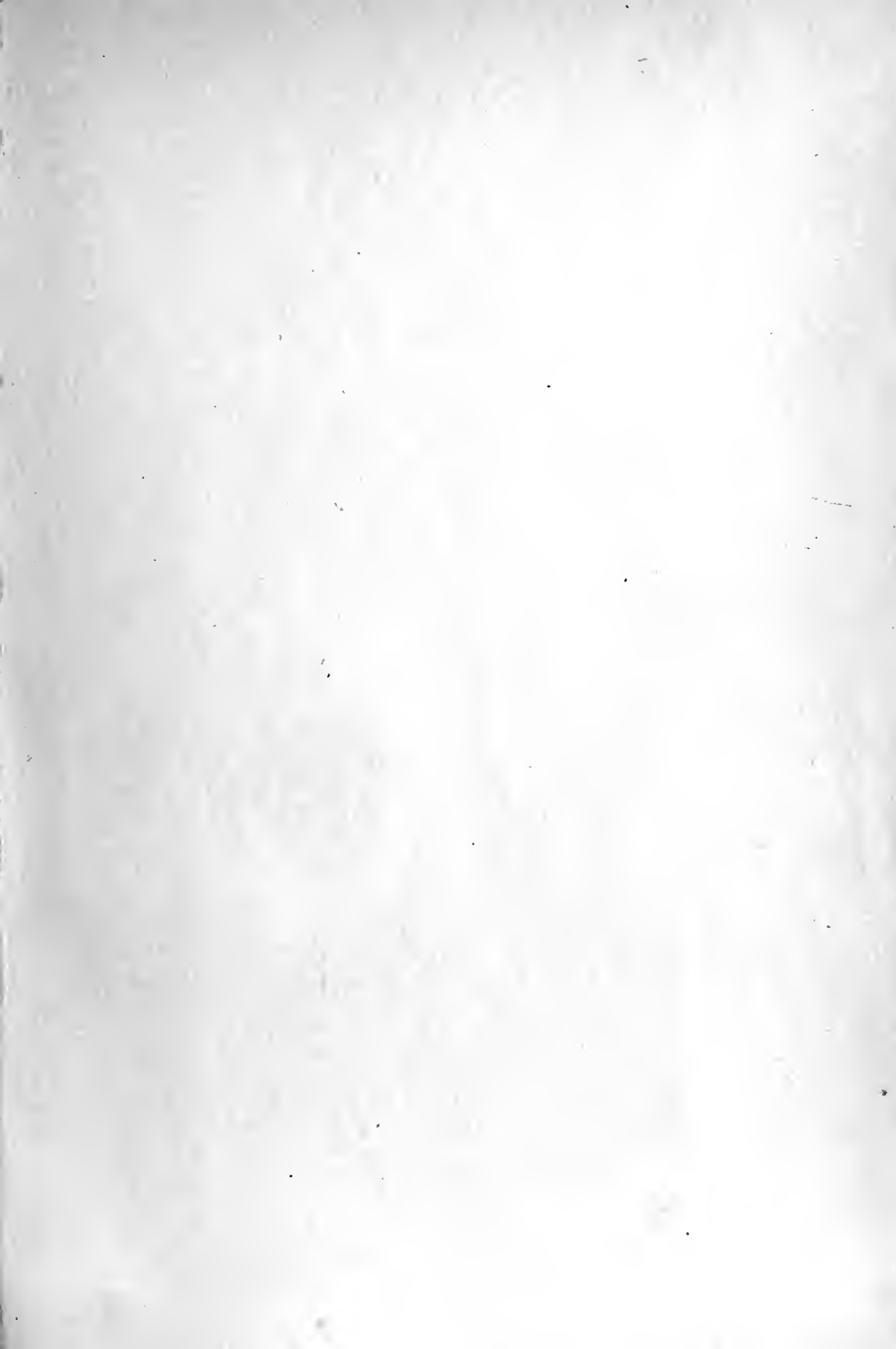


Los Angeles, Cal.

A BILLIARD AND LIVING-ROOM.



BUILDING OF THEODORE A. KOHN & SON.
Fifth Avenue, N. Y. City. Robert D. Kohn, Architect.





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